Bureau of Air Permit Section

File Organization Cover Sheet

Source Name:	Real Alloy Recycling Inc
ID No.:	031045ANE
Application No.:	09120016
Category:	03K Air Permit - Final
Item Date:	4/10/18
Keyword:	
Comment:	
Part:	of

Submitted by: MLM

Attention:

Real Alloy Recycling, Inc.
Attn: Larry Lipa, Plant Manager
400 East Lincoln Highway
Chicago Height, IL 60411

State of Illinois

CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

Source:

Real Alloy Recycling, Inc.
400 East Lincoln Highway
Chicago Height, IL 60411

I.D. No.: 031045ANE
Permit No.: 09120016

Permitting Authority:

Illinois Environmental Protection Agency
Bureau of Air, Permit Section
217/785-1705

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

BRUCE RAUNER, GOVERNOR ALEC MESSINA, DIRECTOR

CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

Type of Application:	New
Purpose of Application:	Issue New Permit to a New Major Source
ID No.:	031045ANE
Permit No.:	09120016
Statement of Basis No.:	09120016 -2017-07
Date Application Received:	12/7/2009
Date Issued:	04/10/2018
Expiration Date:	04/10/2023
Renewal Submittal Date:	9 Months Prior to 04/10/2023
Source Name:	Real Alloy Recycling, Inc.
Address:	400 East Lincoln Highway
City:	Chicago Heights
County:	Cook
ZIP Code:	60411

This permit is hereby granted to the above-designated source authorizing operation in accordance with this CAAPP permit, pursuant to the above referenced application. This source is subject to the conditions contained herein. For further information on the source see Section 1 and for further discussion on the effectiveness of this permit see Condition 2.3(g).

If you have any questions concerning this permit, please contact John H. Michael at 217/785-1705.

Raymond E Pilapil /wom

Raymond E. Pilapil
Manager, Permit Section
Bureau of Air

REP:WDM:JHM:jlp

cc: IEPA, Permit Section
IEPA, FOS, Region 1
Lotus Notes Database

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Section 1 - Source Information

1. Addresses

Source

Real Alloy Recycling Inc.
400 East Lincoln Highway
Chicago Heights, Illinois 60411

Owner

Real Alloy Holding, Inc.
3700 Park East Drive, Suite 300
Beachwood, Ohio 44122

Operator

Real Alloy Recycling Inc.
400 East Lincoln Highway
Chicago Heights, Illinois 60411

Permittee

The Operator of the source as identified in this table.

2. Contacts

Certified Officials

The source shall submit an Administrative Permit Amendment for any change in the Certified Officials, pursuant to Section 39.5(13) of the Act.

	Name	*Title*
Responsible Official	Larry Lipa	Plant Manager
Delegated Authority	No other individuals have been authorized by the IEPA.	N/A

Other Contacts

	Name	*Phone No.*	*Email*
Source Contact	Larry Lipa	708-757-8901	Larry.lipa@realalloy.com
Technical Contact	Jeff Ferg	216-755-8822	Jeff.ferg@realalloy.com
Correspondence	Larry Lipa	708-757-8901	Larry.lipa@realalloy.com
Billing	Larry Lipa	708-757-8901	Larry.lipa@realalloy.com

3. Single Source

The source identified in Condition 1.1 above shall be defined to include all the following additional source(s):

I.D. No.	*Permit No.*	*Single Source Name and Address*
N/A	N/A	N/A

Section 2 - General Permit Requirements

1. Prohibitions

a. It shall be unlawful for any person to violate any terms or conditions of this permit issued under Section 39.5 of the Act, to operate the CAAPP source except in compliance with this permit issued by the IEPA under Section 39.5 of the Act or to violate any other applicable requirements. All terms and conditions of this permit issued under Section 39.5 of the Act are enforceable by USEPA and citizens under the Clean Air Act, except those, if any, that are specifically designated as not being federally enforceable in this permit pursuant to Section 39.5(7)(m) of the Act. [Section 39.5(6)(a) of the Act]

b. After the applicable CAAPP permit or renewal application submittal date, as specified in Section 39.5(5) of the Act, the source shall not operate this CAAPP source without a CAAPP permit unless the complete CAAPP permit or renewal application for such source has been timely submitted to the IEPA. [Section 39.5(6)(b) of the Act]

c. No Owner or Operator of the CAAPP source shall cause or threaten or allow the continued operation of an emission source during malfunction or breakdown of the emission source or related air pollution control equipment if such operation would cause a violation of the standards or limitations applicable to the source, unless this CAAPP permit granted to the source provides for such operation consistent with the Act and applicable Illinois Pollution Control Board regulations. [Section 39.5(6)(c) of the Act]

d. Pursuant to Section 39.5(7)(g) of the Act, emissions from the source are not allowed to exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act or the regulations promulgated thereunder, consistent with Section 39.5(17) of the Act and applicable requirements, if any.

2. Emergency Provisions

Pursuant to Section 39.5(7)(k) of the Act, the Owner or Operator of the CAAPP source may provide an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations under this CAAPP permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:

a. i. An emergency occurred and the source can identify the cause(s) of the emergency.

ii. The source was at the time being properly operated.

iii. The source submitted notice of the emergency to the IEPA within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

iv. During the period of the emergency the source took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or requirements in this permit.

b. For purposes of Section 39.5(7)(k) of the Act, "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, such as an act of God, that requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operation error.

c. In any enforcement proceeding, the source seeking to establish the occurrence of an emergency has the burden of proof. This provision is in addition to any emergency or

upset provision contained in any applicable requirement. This provision does not relieve the source of any reporting obligations under existing federal or state laws or regulations.

3. General Provisions

a. **Duty to Comply**

The source must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. [Section 39.5(7)(o)(i) of the Act]

b. **Need to Halt or Reduce Activity is not a Defense**

It shall not be a defense for the source in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [Section 39.5(7)(o)(ii) of the Act]

c. **Duty to Maintain Equipment**

The source shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements. [Section 39.5(7)(a) of the Act]

d. **Disposal Operations**

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated there under. [Section 39.5(7)(a) of the Act]

e. **Duty to Pay Fees**

i. The source must pay fees to the IEPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto. [Section 39.5(7)(o)(vi) of the Act]

ii. The IEPA shall assess annual fees based on the allowable emissions of all regulated air pollutants, except for those regulated air pollutants excluded in Section 39.5(18)(f) of the Act and insignificant activities in Section 6, at the source during the term of this permit. The amount of such fee shall be based on the information supplied by the applicant in its complete CAAPP permit application. [Section 39.5(18)(a)(ii)(A) of the Act]

iii. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois EPA, P.O. Box 19276, Springfield, IL, 62794-9276. Include on the check: ID #, Permit #, and "CAAPP Operating Permit Fees". [Section 39.5(18)(e) of the Act]

f. **Obligation to Allow IEPA Surveillance**

Pursuant to Sections 4(a), 39.5(7)(a), and 39.5(7)(p)(ii) of the Act, inspection and entry requirements that necessitate that, upon presentation of credentials and other documents as may be required by law and in accordance with constitutional limitations, the source shall allow the IEPA, or an authorized representative to perform the following:

i. Enter upon the source's premises where the emission unit(s) are located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.

iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

iv. Sample or monitor any substances or parameters at any location at reasonable times:

A. As authorized by the Clean Air Act or the Act, at reasonable times, for the purposes of assuring compliance with this CAAPP permit or applicable requirements; or

B. As otherwise authorized by the Act.

v. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.

g. Effect of Permit

i. Pursuant to Section 39.5(7)(j)(iv) of the Act, nothing in this CAAPP permit shall alter or affect the following:

A. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section.

B. The liability of the Owner or Operator of the source for any violation of applicable requirements prior to or at the time of permit issuance.

C. The applicable requirements of the acid rain program consistent with Section 408(a) of the Clean Air Act.

D. The ability of USEPA to obtain information from the source pursuant to Section 114 (inspections, monitoring, and entry) of the Clean Air Act.

ii. Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, pursuant to Sections 39.5(7)(j) and (p) of the Act, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements. [35 IAC 201.122 and Section 39.5(7)(a) of the Act]

h. Severability Clause

The provisions of this permit are severable. In the event of a challenge to any portion of this permit, other portions of this permit may continue to be in effect. Should any portion of this permit be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected and the rights and obligations of the source shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force. [Section 39.5(7)(i) of the Act]

4. Testing

a. Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods if applicable test methods are not specified by the applicable regulations or otherwise identified in the conditions of this permit. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of

any tests conducted as required by this permit or as the result of a request by the IEPA shall be submitted as specified in Condition 7.1 of this permit. [35 IAC Part 201 Subpart J and Section 39.5(7)(a) of the Act]

b. Pursuant to Section 4(b) of the Act and 35 IAC 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:

i. Testing by Owner or Operator: The IEPA may require the Owner or Operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the IEPA, at such reasonable times as may be specified by the IEPA and at the expense of the Owner or Operator of the emission source or air pollution control equipment. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The IEPA shall have the right to observe all aspects of such tests.

ii. Testing by the IEPA: The IEPA shall have the right to conduct such tests at any time at its own expense. Upon request of the IEPA, the Owner or Operator of the emission source or air pollution control equipment shall provide, without charge to the IEPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.

5. Recordkeeping

a. **Control Equipment Maintenance Records**

Pursuant to Section 39.5(7)(b) of the Act, a maintenance record shall be kept on the premises for each item of air pollution control equipment. At a minimum, this record shall show the dates maintenance was performed and the nature of preventative maintenance activities.

b. **Retention of Records**

i. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [Section 39.5(7)(e)(ii) of the Act]

ii. Pursuant to Section 39.5(7)(a) of the Act, other records required by this permit including any logs, plans, procedures, or instructions required to be kept by this permit shall be retained for a period of at least 5 years from the date of entry unless a different period is specified by a particular permit provision.

c. **Availability of Records**

i. Pursuant to Section 39.5(7)(a) of the Act, the Permittee shall retrieve and provide paper copies, or as electronic media, any records retained in an electronic format (e.g., computer) in response to an IEPA or USEPA request during the course of a source inspection.

ii. Pursuant to Section 39.5(7)(a) of the Act, upon written request by the IEPA for copies of records or reports required to be kept by this permit, the Permittee shall promptly submit a copy of such material to the IEPA. For this purpose, material shall be submitted to the IEPA within 30 days unless additional time is provided by the IEPA or the Permittee believes that the volume and nature of

requested material would make this overly burdensome, in which case, the Permittee shall respond within 30 days with the explanation and a schedule for submittal of the requested material. (See also Condition 2.9(d))

6. Certification

a. **Compliance Certification**

i. Pursuant to Section 39.5(7)(p)(v)(C) of the Act, the source shall submit annual compliance certifications by May 1 unless a different date is specified by an applicable requirement or by a particular permit condition. The annual compliance certifications shall include the following:

A. The identification of each term or condition of this permit that is the basis of the certification.

B. The compliance status.

C. Whether compliance was continuous or intermittent.

D. The method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.

ii. Pursuant to Section 39.5(7)(p)(v)(D) of the Act, all compliance certifications shall be submitted to the IEPA Compliance Section. Address is included in Attachment 3.

iii. Pursuant to Section 39.5(7)(p)(i) of the Act, all compliance reports required to be submitted shall include a certification in accordance with Condition 2.6(b).

b. **Certification by a Responsible Official**

Any document (including reports) required to be submitted by this permit shall contain a certification by the responsible official of the source that meets the requirements of Section 39.5(5) of the Act and applicable regulations. [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included in Attachment 4 of this permit.

7. Permit Shield

a. Pursuant to Section 39.5(7)(j) of the Act, except as provided in Condition 2.7(b) below, the source has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the IEPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit. This permit shield does not extend to applicable requirements which are promulgated after 2/20/2018 (date USEPA notice started), unless this permit has been modified to reflect such new requirements.

b. Pursuant to Section 39.5(7)(j) of the Act, this permit and the terms and conditions herein do not affect the Permittee's past and/or continuing obligation with respect to statutory or regulatory requirements governing major source construction or modification under Title I of the CAA. Further, neither the issuance of this permit nor any of the terms or conditions of the permit shall alter or affect the liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance.

c. Pursuant to Section 39.5(7)(a) of the Act, the issuance of this permit by the IEPA does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any currently pending or future legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the IEPA or the USEPA may have against the applicant including, but not limited to, any enforcement action authorized pursuant to the provision of applicable federal and state law.

8. Title I Conditions

Pursuant to Sections 39(a), 39(f), and 39.5(7)(a) of the Act, as generally identified below, this CAAPP permit may contain certain conditions that relate to requirements arising from the construction or modification of emission units at this source. These requirements derive from permitting programs authorized under Title I of the Clean Air Act (CAA) and regulations thereunder, and Title X of the Illinois Environmental Protection Act (Act) and regulations implementing the same. Such requirements, including the New Source Review programs for both major (i.e., PSD and nonattainment areas) and minor sources, are implemented by the IEPA.

a. This permit may contain conditions that reflect requirements originally established in construction permits previously issued for this source. These conditions include requirements from preconstruction permits issued pursuant to regulations approved or promulgated by USEPA under Title I of the CAA, as well as requirements contained within construction permits issued pursuant to state law authority under Title X of the Act. Accordingly, all such conditions are incorporated into this CAAPP permit by virtue of being either an "applicable Clean Air Act requirement" or an "applicable requirement" in accordance with Section 39.5 of the Act. These conditions are identifiable herein by a designation to their origin of authority.

b. This permit may contain conditions that reflect necessary revisions to requirements established for this source in preconstruction permits previously issued under the authority of Title I of the CAA. These conditions are specifically designated herein as "TIR".

   i. Revisions to original Title I permit conditions are incorporated into this permit through the combined legal authority of Title I of the CAA and Title X of the Act. Public participation requirements and appeal rights shall be governed by Section 39.5 of the Act.

   ii. Revised Title I permit conditions shall remain in effect through this CAAPP permit, and are therefore enforceable under the same, so long as such conditions do not expire as a result of a failure to timely submit a complete renewal application or are not removed at the applicant's request.

c. This permit may contain conditions that reflect new requirements for this source that would ordinarily derive from a preconstruction permit established under the authority of Title I of the CAA. These conditions are specifically designated herein as "TIN".

   i. The incorporation of new Title I requirements into this CAAPP permit is authorized through the combined legal authority of Title I of the CAA and Title X of the Act. Public participation requirements and appeal rights shall be governed by Section 39.5 of the Act.

   ii. Any Title I conditions that are newly incorporated shall remain in effect through this CAAPP permit, and are therefore enforceable under the same, so long as such conditions do not expire as a result of a failure to timely submit a complete renewal application or are not removed at the applicant's request.

9. Reopening and Revising Permit

a. **Permit Actions**

This permit may be modified, revoked, reopened and reissued, or terminated for cause in accordance with applicable provisions of Section 39.5 of the Act. The filing of a request by the source for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [Section 39.5(7)(o)(iii) of the Act]

b. **Reopening and Revision**

Pursuant to Section 39.5(15)(a) of the Act, this permit must be reopened and revised if any of the following occur:

i. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;

ii. Additional requirements become applicable to the source for acid deposition under the acid rain program;

iii. The IEPA or USEPA determines that this permit contains a material mistake or that an inaccurate statement was made in establishing the emission standards or limitations, or other terms or conditions of this permit; or

iv. The IEPA or USEPA determines that this permit must be revised or revoked to ensure compliance with the applicable requirements.

c. **Inaccurate Application**

Pursuant to Sections 39.5(5)(e) and (i) of the Act, the IEPA has issued this permit based upon the information submitted by the source in the permit application referenced on page 1 of this permit. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation or reopening of this CAAPP under Section 39.5(15) of the Act.

d. **Duty to Provide Information**

The source shall furnish to the IEPA, within a reasonable time specified by the IEPA any information that the IEPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the source shall also furnish to the IEPA copies of records required to be kept by this permit. [Section 39.5(7)(o)(v) of the Act]

10. Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement. [Section 39.5(7)(o)(vii) of the Act]

11. Permit Renewal

a. Upon the expiration of this permit, if the source is operated, it shall be deemed to be operating without a permit unless a timely and complete CAAPP application has been submitted for renewal of this permit. However, if a timely and complete application to renew this CAAPP permit has been submitted, the terms and all conditions of the most recent issued CAAPP permit will remain in effect until the issuance of a renewal permit. [Sections 39.5(5)(l) and (o) of the Act]

b. For purposes of permit renewal, a timely application is one that is submitted no less than 9 months prior to the date of permit expiration. [Section 39.5(5)(n) of the Act]

12. Permanent Shutdown

Pursuant to Section 39.5(7)(a) of the Act, this permit only covers emission units and control equipment while physically present at the source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

13. Start-Up, Shutdown, and Malfunction

Pursuant to Section 39.5(7)(a) of the Act, in the event of an action to enforce the terms or conditions of this permit, this permit does not prohibit a Permittee from invoking any affirmative defense that is provided by the applicable law or rule.

Section 3 - Source Requirements

1. Applicable Requirements

Pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act, the Permittee shall comply with the following applicable requirements. These requirements are applicable to all emission units (including insignificant activities unless specified otherwise in this Section) at the source.

a. **Fugitive Particulate Matter**

i. Pursuant to 35 IAC 212.301 and 35 IAC 212.314, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source unless the wind speed is greater than 25 mph.

ii. Compliance Method (Fugitive Particulate Matter)

Upon request by the IEPA, the Permittee shall conduct observations at the property line of the source for visible emissions of fugitive particular matter from the source to address compliance with 35 IAC 212.301. For this purpose, daily observations shall be conducted for a week for particular area(s) of concern at the source, as specified in the request, observations shall begin either within one day or three days of receipt of a written request from the IEPA, depending, respectively, upon whether observations will be conducted by employees of the Permittee or a third-party observer hired by the Permittee to conduct observations on its behalf. The Permittee shall keep records for these observations, including identity of the observer, the date and time of observations, the location(s) from which observations were made, and duration of any fugitive emissions event(s).

b. **Emissions Reduction Market System (ERMS)**

Pursuant to 35 IAC Part 205, ERMS seasonal emissions of VOM during the seasonal allotment period from May 1 through September 30 shall not exceed 15 tons, not including VOM emissions from insignificant emission units and activities as identified in Section 6 of this permit. The Permittee shall comply with all applicable requirements in Section 7.3 of this permit.

c. **Ozone Depleting Substances**

Pursuant to 40 CFR 82.150(b), the Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

i. Pursuant to 40 CFR 82.156, persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices.

ii. Pursuant to 40 CFR 82.158, equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment.

iii. Pursuant to 40 CFR 82.161, persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program.

iv. Pursuant to 40 CFR 82 Subpart B, any person performing service on a motor vehicle for consideration when this service involves the refrigerant in the motor vehicle air conditioner shall comply with 40 CFR 82 Subpart B, Servicing of Motor Vehicle Air Conditioners.

v. Pursuant to 40 CFR 82.166, all persons shall comply with the reporting and recordkeeping requirements of 40 CFR 82.166.

d. **Asbestos Demolition and Renovation**

i. Asbestos Fees. Pursuant to Section 9.13(a) of the Act, for any site for which the Owner or Operator must file an original 10-day notice of intent to renovate or demolish pursuant to Condition 3.1(d)(ii) below and 40 CFR 61.145(b), the owner or operator shall pay to the IEPA with the filing of each 10-day notice a fee of $150.

ii. Pursuant to 40 CFR 61 Subpart M, Standard of Asbestos, prior to any demolition or renovation at this facility, the Permittee shall fulfill notification requirements of 40 CFR 61.145(b).

iii. Pursuant to 40 CFR 61.145(c), during demolition or renovation, the Permittee shall comply with the procedures for asbestos emission control established by 40 CFR 61.145(c).

e. **Future Emission Standards**

Pursuant to Section 39.5(15)(a) of the Act, this source shall comply with any new or revised applicable future standards of 40 CFR 60, 61, 62, or 63; or 35 IAC Subtitle B after the date issued of this permit. The Permittee shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by Condition 2.6(a). This permit may also have to be revised or reopened to address such new regulations in accordance with Condition 2.9.

2. Applicable Plans and Programs

Pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act, the Permittee shall comply with the following applicable requirements. These requirements are applicable to all emission units (including insignificant activities unless specified otherwise in this Section) at the source.

a. **Fugitive PM Operating Program**

i. Pursuant to 35 IAC 212.309, this source shall be operated under the provisions of Fugitive PM Operating Program prepared by the Permittee and submitted to the IEPA for its review. The Fugitive PM Operating Program shall be designed to significantly reduce fugitive particulate matter emissions, pursuant to 35 IAC 212.309(a). The Permittee shall comply with the Fugitive PM Operating Program and any amendments to the Fugitive PM Operating Program submitted pursuant to Condition 3.2(a)(ii). As a minimum, the Fugitive PM Operating Program shall include provisions identified in 35 IAC 212.310(a) through (g) and the following:

A. A detailed description of the best management practices utilized to achieve compliance with 35 IAC 212.304 through 212.308.

B. Estimated frequency of application of dust suppressants by location.

C. Such other information as may be necessary to facilitate the IEPA's review of the Fugitive PM Operating Program.

ii. Pursuant to 35 IAC 212.312, the Fugitive PM Operating Program shall be amended from time to time by the Permittee so that the Fugitive PM Operating Program is current. Such amendments shall be consistent with the requirements set forth by this Condition 3.2(a) and shall be submitted to the IEPA within 30 days of such

amendment. Any future revision to the Fugitive PM Operating Program made by the Permittee during the permit term is automatically incorporated by reference provided the revision is not expressly disapproved, in writing, by the IEPA within 30 days of receipt of the revision. In the event that the IEPA notifies the Permittee of a deficiency with any revision to the Fugitive PM Operating Program, the Permittee shall be required to revise and resubmit the Fugitive PM Operating Program within 30 days of receipt of notification to address the deficiency pursuant to Section 39.5(7)(a) of the Act.

iii. The Fugitive PM Operating Program, as submitted by the Permittee on 09/22/2015, is incorporated herein by reference. The document constitutes the formal Fugitive PM Operating Program required under 35 IAC 212.310, addressing the control of fugitive particulate matter emissions from all plant roadways, including the iron-making and steel-making roads, storage piles, access areas near storage piles, and other subject operations located at the facility that are subject to 35 IAC 212.309.

iv. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall keep a copy of the Fugitive PM Operating Program, any amendments or revisions to the Fugitive PM Operating Program (as required by Condition 3.2(a)), and the Permittee shall also keep a record of activities completed according to the Fugitive PM Operating Program.

b. **PM_{10} Contingency Measure Plan**

Should this source become subject to 35 IAC 212.700, then the Permittee shall prepare and operate under a PM_{10} Contingency Measure Plan reflecting the PM_{10} emission reductions as set forth in 35 IAC 212.701 and 212.703. The Permittee shall, within 90 days after the date this source becomes subject to 35 IAC 212.700, submit a request to modify this CAAPP permit in order to include a new, appropriate PM_{10} Contingency Measure Plan.

c. **Episode Action Plan**

Should this source become subject to 35 IAC 244.142, the Permittee shall prepare, submit, and operate under an Episode Action Plan for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures and submitted to the IEPA for its review. The Episode Action Plan shall contain the information specified in 35 IAC 244.144. The Permittee shall immediately implement the appropriate steps described in this Episode Action Plan should an air pollution alert or emergency be declared. Any future Episode Action Plan made by the Permittee during the permit term is automatically incorporated by reference provided the Episode Action Plan is not expressly disapproved, in writing, by the IEPA within 30 days of receipt of the Episode Action Plan. In the event that the IEPA notifies the Permittee of a deficiency with any Episode Action Plan, the Permittee shall be required to revise and resubmit the Episode Action Plan within 30 days of receipt of notification to address the deficiency pursuant to Section 39.5(7)(a) of the Act.

d. **Risk Management Plan (RMP)**

Should this stationary source, as defined in 40 CFR 68.3, become subject to the federal regulations for Chemical Accident Prevention in 40 CFR Part 68, then the Permittee shall submit a compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or submit a certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan, as part of the annual compliance certification required by Condition 2.6(a). This condition is imposed in this permit pursuant to 40 CFR 68.215(a)(2)(i) and (ii).

3. Title I Requirements

As of the date of issuance of this permit, there are no source-wide Title I requirements that need to be included in this Condition.

4. Synthetic Minor Limits

of the date of issuance of this permit, there are no source-wide synthetic minor limits that need to be included in this Condition.

5. Reporting Requirements

The Permittee shall submit the following information pursuant to Section 39.5(7)(f) of the Act. Addresses are included in Attachment 3.

a. Prompt Reporting

i. A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA, Air Compliance Section, within 30 days of deviations from applicable requirements as follows:

I. Requirements in Conditions 3.1(a)(i), 3.1(b), 3.1(c),3.1(d) and 3.1(e).

II. Requirements in Conditions 3.2(a), 3.2(b), 3.2(c), and 3.2(d).

B. All such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).

ii. The Permittee shall notify the IEPA, Air Compliance Section, of all other deviations as part of the Semiannual Monitoring Report required by Condition 3.5(b).

iii. The deviation reports shall contain at a minimum the following information:

A. Date and time of the deviation.

B. Emission unit(s) and/or operation involved.

C. The duration of the event.

D. Probable cause of the deviation.

E. Corrective actions or preventative measures taken.

iv. All deviation reports required in this Permit shall be identified, summarized, and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).

b. Semiannual Reporting

i. Pursuant to Section 39.5(7)(f)(i) of the Act, the Permittee shall submit a Semi-Annual Monitoring Report to the Illinois EPA, Air Compliance Section, summarizing required monitoring and identifying all instances of deviation from the permit, every six months as follows, unless more frequent reporting is required elsewhere in this Permit.

Monitoring Period	Report Due Date
January through June	July 31
July through December	January 31

ii. The Semiannual Monitoring Report must be certified by a Responsible Official consistent with Condition 2.6(b).

Note: Required monitoring includes all applicable monitoring, testing, recordkeeping, and reporting requirements. This may include monitoring requirements not addressed within the Compliance Method Sections of this Permit.

c. **Annual Emissions Reporting**

Pursuant to 35 IAC Part 254, the Source shall submit an Annual Emission Report to the Air Quality Planning Section, due by May 1 of the year following the calendar year in which the emissions took place. All records and calculations upon which the verified and reported data are based must be retained by the source.

Section 4 - Emission Unit Requirements

4.1 Secondary Aluminum Production

1. Emission Units and Operations

Emission Units	Pollutants Being Regulated	Original Construction Date	Modification/ Reconstruction Date	Air Pollution Control Devices or Measures	Monitoring Devices
Subject to 40 CFR 63, Subpart RRR					
Group 1 Furnaces					
Rotary Furnace (RF1)	PM, SO_2, CO, NO_X, VOM, D/F, HCL	1996	N/A	Baghouse #4 with lime-injection	Bag leak detector and continuous temperature monitor
Rotary Furnace (RF3)	PM, SO_2, CO, NO_X, VOM, D/F, HCL	2012	N/A	Baghouse #2 with lime-injection	Bag leak detector and continuous temperature monitor
Group 2 Furnaces					
Holding Furnace (FH1)	PM, SO_2, CO, NO_X, VOM	2006	N/A	none	N/A
Holding Furnace (FH2)	PM, SO_2, CO, NO_X, VOM	2006	N/A	none	N/A
Not Subject to 40 CFR 63, Subpart RRR					
Deox Shot Casting	PM	2006	N/A	none	N/A
Salt Cake Handling (SCH1)	PM	1996	N/A	Baghouse #2 and #3	N/A
Charge Hood	PM	1996	N/A	Baghouse (BH5)	N/A
Barrel Cutting	PM	1996	N/A	Baghouse (BH6)	N/A

2. Applicable Requirements

For the emission units in Condition 4.1.1 above, the Permittee shall comply with the following applicable requirements pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act.

a. i. Opacity Requirements

A. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 IAC 212.122, except as allowed by 35 IAC 212.123(b) and 212.124.

B. Pursuant to Construction Permit #11050038, there shall be no visible emission of particulate matter from the buildings in which the Rotary Furnaces RF1 and RF3, salt cake handling operations and holding furnaces are located. [T1]

ii. Compliance Method (Opacity Requirements)

Monitoring

A. Pursuant to Sections 39.5(7)(b) and (d) of the Act, to address compliance with Condition 4.1.2(a)(i)(A), the Permittee shall perform visible emission observations in accordance with Method 22 on at least monthly basis on each stack for controlled emission units (e.g., the

emission units controlled by baghouses). If visible emissions are observed, the Permittee shall take corrective action within 4 hours of such observation. Corrective action may include, but is not limited to, shut down of the operation, maintenance and repair, and/or adjustment of fuel usage. If corrective action was taken, the Permittee shall perform a follow up observation for visible emissions in accordance with Method 22. If visible emissions continue, then measurements of opacity shall be performed in accordance with Method 9 within 7 days.

B. Pursuant to Sections 39.5(7)(b) and (d) of the Act, to address compliance with Condition 4.1.2(a)(i)(B), the Permittee shall perform visible emission observations for building openings (e.g., building vents, windows, exits, and doors) on the buildings in which the Rotary Furnaces RF1 and RF3, salt cake handling operations and holding furnaces are located. These observations shall be made in accordance with Method 22 at least semi-annually. If visible emissions are observed, the Permittee shall take corrective action within 4 hours of such observation. Corrective action may include, but is not limited to, shut down of the operation, maintenance and repair, and/or adjustment of fuel usage. If corrective action was taken, the Permittee shall perform follow up observation for visible emissions in accordance with Method 22 until visible emissions cease.

Recordkeeping

C. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall keep records for each visible emission observation and opacity reading performed in accordance with Condition 4.1.2(a)(ii)(A). These records shall include, at a minimum: date and time the observation was performed, name(s) of observing personnel, identification of which equipment was observed, whether or not the equipment was running properly, the findings of the observation including the presence of any visible emissions, and a description of any corrective action taken including if the corrective action took place within 4 hours of the observation.

D. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall keep records for each visible emission observation performed in accordance with Condition 4.1.2(a)(ii)(B). These records shall include, at a minimum: date and time the observation was performed, name(s) of observing personnel, identification of which building opening(s) was observed, whether or not the equipment within the building was running properly, the findings of the observation including the presence of any visible emissions, and a description of any corrective action taken including if the corrective action took place within 4 hours of the observation.

b. i. Particulate Matter Requirements (PM)

A. Pursuant to 35 IAC 212.321(a), no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit for which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, which, at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c) (See Condition 7.2).

B. Pursuant to 40 CFR 63.1505(i)(1), Rotary Furnaces RF1 and RF3 Particulate matter (PM) Emissions, with a clean charge shall not exceed 0.20 kg per mg (0.40 lb per ton) of feed/charge.

C. Pursuant to Construction Permit #11050038, uncaptured PM emissions from Rotary Furnaces RF1 and RF3 shall not exceed 2.22 tons/month and 22.26

tons/year. These limits address total particulate matter, including both filterable and condensable PM. [T1]

D. Pursuant to Construction Permit #11050038, captured PM emissions from Rotary Furnaces RF1 and RF3 shall not exceed 1.11 tons/month and 11.17 tons/year. These limits address total particulate matter, including both filterable and condensable PM. [T1]

E. Pursuant to Construction Permit #11050038, the captured emission of particulate matter from salt cake handling operations (Baghouses 2 and 3, combined) shall not exceed 6.35 lbs/hour and 27.83 tons/year [T1]

F. Pursuant to Construction Permit #11050038, the minimal emissions of uncaptured particulate matter from the salt cake handling operations shall not exceed 0.25 lbs/hour and 1.1 tons/year. [T1]

ii. Compliance Method (PM Requirements)

Monitoring

A. Pursuant to 39.5(7)(b) of the Act, compliance with annual PM limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running total 12 months of data).

B. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall conduct semi-annual inspections of each filter to ensure that no clogs have been developed and a filter has not malfunctioned. If required by results of these inspections, maintenance and repair shall be done to resolve found problems.

C. Pursuant to 40 CFR 63.1505(k), the Permittee shall comply with Rotary Furnaces RF1 and RF3 PM emission limits Condition 4.1.2(b)(i)(B) calculated by using equation in 40 CFR 63.1505(k)(1).

I. The owner or operator must not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of PM in excess of:

$$L_{cPM} = \frac{\sum_{i=1}^{n}\left(L_{tiPM} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \qquad \text{(Eq. 1)}$$

L_{tiPM} = The PM emission limit for individual emission unit i in 40 CFR 63.1505(i)(1) and (2) of this section for a group 1 furnace or in 40 CFR 63.1505 (j)(2) of this section for an in-line fluxer;

T_{ti} = The mass of feed/charge for 24 hours for individual emission unit i; and

L_{cPM} = The daily PM emission limit for the secondary aluminum processing unit which is used to calculate the 3-day, 24-hour PM emission limit applicable to the Secondary aluminum processing unit (SAPU):

NOTE: In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the PM limit.

Testing

D. Pursuant to 39.5(7)(b) of the Act, within 24 months the granting of this permit and every 60 months thereafter, the Permittee shall conduct performance tests for Rotary Furnace (RF1) and Rotary Furnace (RF3) as follows:

I. Pursuant to 40 CFR 63.1512(d)(1) and (2), each Rotary Furnace RF1 and RF3 that processes scrap other than clean charge materials or clean charge materials with emissions controlled by a lime-injected fabric filter must conduct performance tests to measure emissions of PM at the outlet of the control device.

II. Pursuant to Construction Permit #11050038, PM emissions would be tested while processing oil containing materials. [T1]

III. Pursuant to Construction Permit #11050038, in conjunction with this performance testing, the Permittee shall also have emission tests each Rotary Furnace RF1 and RF3 condensable particulate while processing oil containing materials. [T1]

IV. The following USEPA test methods shall be used for testing emissions of PM less other USEPA Methods are approved by the Illinois EPA:

Location of Sample Points	Method 1
Gas Flow and Velocity	Method 2
Flue Gas Weight	Method 3
Moisture	Method 4
Condensable Particulate	Method 202
PM	Method 5

E. The Permittee shall comply with all the requirements of Section 7.1.

Recordkeeping

F. Pursuant to 39.5(7)(b) of the Act, the Permittee shall keep records of the hourly PM emissions with supporting documentation and calculations

G. Pursuant to 39.5(7)(b) of the Act, the Permittee shall keep records of the monthly and annual PM emissions with supporting documentation and calculations

H. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records of inspections of control devices, along with the logs of maintenance/repair performed.

I. Pursuant to 40 CFR 63.1510(t), the Permittee must calculate and record the 3-day, 24-hour rolling average emissions of PM for each secondary aluminum processing unit on a daily basis. To calculate the 3-day, 24-hour rolling average, the owner or operator must:

I. Calculate and record the total weight of material charged to each emission unit in the secondary aluminum processing unit for each 24-hour day of operation using the feed/charge weight information required in Condition 4.1.2(i)(i)(C) and 40 CFR 63.1510(e). If the owner or operator chooses to comply on the basis of weight of aluminum produced by the emission unit, rather than weight of material charged to the emission unit, all performance test emissions results and all calculations must be conducted on the aluminum production weight basis.

II. Multiply the total feed/charge weight to the emission unit, or the weight of aluminum produced by the emission unit, for each emission

unit for the 24-hour period by the emission rate (in lb/ton of feed/charge) for that emission unit (as determined during the performance test) to provide emissions for each emission unit for the 24-hour period, in pounds.

1. Where no performance test has been conducted, for a particular emission unit, because the owner of operator has, with the approval of the permitting authority for major sources, or the Administrator for area sources, chosen to determine the emission rate of an emission unit by testing a representative unit, in accordance with 40 CFR 63.1511(f), the owner or operator shall use the emission rate determined from the representative unit in the Secondary Aluminum Processing Unit (SAPU) emission rate calculation required in 40 CFR 63.1510(t)(4).

2. Except as provided in paragraph (t)(2)(iii) of this section, if the owner or operator has not conducted performance tests for HCl (and HF for an uncontrolled group 1 furnace) or for HCl for an in-line fluxer, in accordance with the provisions of 40 CFR 63.1512(d)(3), (e)(3), or (h)(2), the calculation required in 40 CFR 63.1510(t)(4) to determine SAPU-wide HCl and HF emissions shall be made under the assumption that all chlorine contained in reactive flux added to the emission unit is emitted as HCl and all fluorine contained in reactive flux added to the emission unit is emitted as HF.

3. Prior to the date by which the initial performance test for HF emissions from uncontrolled group 1 furnaces is conducted, or is required to be conducted, the calculation required in 40 CFR 63.1505(k) to determine the SAPU-wide HF emission limit and the calculation required in 40 CFR 63.1510(t)(4) to determine the SAPU-wide HF emission rate must exclude HF emissions from untested uncontrolled group 1 furnaces and feed/charge processed in untested uncontrolled group 1 furnaces.

III. Divide the total emissions for each SAPU for the 24-hour period by the total material charged to the SAPU, or the weight of aluminum produced by the SAPU over the 24-hour period to provide the daily emission rate for the SAPU.

IV Compute the 24-hour daily emission rate using Equation 4, 40 CFR 63.1510(t).

V. Calculate and record the 3-day, 24-hour rolling average for each pollutant each day by summing the daily emission rates for each pollutant over the 3 most recent consecutive days and dividing by 3. The SAPU is in compliance with an applicable emission limit if the 3-day, 24-hour rolling average for each pollutant is no greater than the applicable SAPU emission limit determined in accordance with 40 CFR 63.1505(k)(1)-(3).

J. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall keep records of the hours of operation for all processes, (hr/mo, hr/yr).

K. Pursuant to Section 39.5(7)(b), the Permittee shall maintain records of the maximum hourly PM emissions from each process with supporting calculations (lb/hr, ton/yr).

c. i. **Sulfur Dioxide Requirements (SO_2)**

A. Pursuant to 35 IAC 214.301, for each curing oven, no person shall cause or allow the emission of sulfur dioxide into the atmosphere to exceed 2,000 ppm.

B. Pursuant to Construction Permit #11050038, emissions of SO_2 from each holding furnace shall not exceed 0.25 lbs/hour and 1.1 tons/year. [T1]

ii. Compliance Method (SO_2 Requirements)

Monitoring

A. For demonstrating compliance with Condition 4.1.2(c)(i)(A), the periodic monitoring requirements sufficient to meet Sections 39.5(7)(b) and (d) of the Act are addressed by the operational and production requirements in the work practice requirements in Condition 4.1.2(j).

B. Pursuant to 39.5(7)(b) of the Act, compliance with annual SO_2 limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running total 12 months of data).

Recordkeeping

C. Pursuant to 39.5(7)(b) of the Act, the Permittee shall keep records of the monthly and annual SO_2 emissions with supporting documentation and calculations

d. i. **Volatile Organic Material Requirements (VOM)**

A. Pursuant to Construction Permit #11050038), Rotary Furnaces RF1 and RF3 VOM Emissions shall not exceed 4.50 tons/month and 22.76 tons/year. [T1]

B. Pursuant to Construction Permit #11050038, emissions of VOM from each holding furnace shall not exceed 0.25 lbs/hour and 1.1 tons/year. [T1]

C. Pursuant to Construction Permit #11050038, emissions of VOM from all emission units operated at the plant shall not exceed 14 tons/ozone season and 22.8 tons/year. [T1]

ii. Compliance Method (VOM Requirements)

Monitoring

A. Pursuant to 39.5(7)(b) of the Act, compliance with annual VOM limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running total 12 months of data).

Testing

B. Pursuant to 39.5(7)(b) of the Act and Construction Permit #11050038, within 24 month the granting of this permit and every 60 months thereafter, the Permittee shall conduct the performance tests or Rotary Furnace (RF1) and Rotary Furnace (RF3) as follows: [T1]

I. Pursuant to Construction Permit #11050038, the Permittee shall test each Rotary Furnace RF1 and RF3 for VOM emissions under both modes of operation, i.e., while processing "organic-free material" and while processing "other material". [T1]

II. The following USEPA test methods shall be used for testing emissions of particulate unless other USEPA Methods are approved by the Illinois EPA:

Location of Sample Points	Method 1
Gas Flow and Velocity	Method 2
Flue Gas Weight	Method 3
Moisture	Method 4
Volatile Organic Material	Method 18, 25A or 320

C. The Permittee shall comply with all the requirements of Section 7.1.

Recordkeeping

D. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records of hourly VOM emissions along with supporting documentation and calculations.

E. Pursuant to 39.5(7)(b) of the Act, the Permittee shall keep records of the monthly and annual VOM emissions with supporting documentation and calculations

e. i. **Carbon Monoxide Requirements (CO)**

A. Pursuant to Construction Permit #11050038), Rotary Furnaces RF1 and RF3 CO Emissions shall not exceed 17.5 tons/month and 87.40 tons/year. [T1]

B. Pursuant to Construction Permit #11050038, emissions of CO from each holding furnace shall not exceed 0.25 lbs/hour and 1.1 tons/year. [T1]

ii. Compliance Method (CO Requirements)

Monitoring

A. Pursuant to 39.5(7)(b) of the Act, compliance with annual CO limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running total 12 months of data).

Testing

B. Pursuant to 39.5(7)(b) of the Act and Construction Permit #11050038, the within 24 month the granting of this permit and every 60 months thereafter the Permittee shall conduct the performance test or Rotary Furnace (RF1) and Rotary Furnace (RF3) as follows: [T1]

I. Pursuant to Construction Permit #11050038, the Permittee shall also test each Rotary Furnace RF1 and RF3 for CO emissions under both modes of operation, i.e., while processing "organic-free material" and while processing "other material

II. The following USEPA test methods shall be used for testing emissions of particulate unless other USEPA Methods are approved by the Illinois EPA:

Location of Sample Points	Method 1
Gas Flow and Velocity	Method 2
Flue Gas Weight	Method 3
Moisture	Method 4
Carbon Monoxide	Method 10

C. The Permittee shall comply with all the requirements of Section 7.1.

Recordkeeping

D. Pursuant to 39.5(7)(b) of the Act, the Permittee shall keep records of the monthly and annual CO emissions with supporting documentation and calculations.

f. i. **Nitrogen Oxide Requirements (NO_x)**

A. Pursuant to Construction Permit #11050038, Rotary Furnaces RF1 and RF3 CO Emissions shall not exceed 2.50 tons/month and 12.40 tons/year. [T1]

B. Pursuant to Construction Permit #11050038, the emission of NO_x from the holding furnace shall not exceed 0.12 lbs/ton of aluminum and 5.0 tons/year, total. [T1]

ii. Compliance Method (NO_x Requirements)

Monitoring

A. Pursuant to 39.5(7)(b) of the Act, compliance with annual NO_x limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running total 12 months of data).

Recordkeeping

B. Pursuant to 39.5(7)(b) of the Act, the Permittee shall keep records of the monthly and annual NO_x emissions with supporting documentation and calculations

g. i. **Hydrogen chloride (HCL) Requirements**

A. Pursuant to Table 1 of 40 CFR 63.1505(a) and 40 CFR 63.1505(i), Rotary Furnaces RF1 and RF3 Hydrogen chloride (HCL) Emissions, with or without a clean charge shall not exceed 0.20 kg of per mg (0.40 lb per ton) of feed/charge or, if the furnace is equipped with an add-on air pollution control device, 10 percent of the uncontrolled emissions, by weight.

B. Pursuant to Construction Permit #11050038, Rotary Furnaces RF1 and RF3 Hydrogen chloride (HCL) Emissions, shall not exceed 1.60 tons/month and 8.00 tons/year. [T1]

ii. Compliance Method (Hydrogen chloride Requirements)

Monitoring

A. Pursuant to 39.5(7)(b) of the Act, compliance with the annual HCl limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running total 12 months of data).

B. Pursuant to 40CFR 63.1505(k), the Permittee shall comply with Rotary Furnaces RF1 and RF3 HCL emission limits Condition 4.1.2(g)(i)(A) calculated using equation in 40 CFR 63.1505(k)(2).

I. The owner or operator must not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of HCl or HF in excess of:

$$L_{c\,HCl/HF} = \frac{\sum_{i=1}^{n}\left(L_{ti\,HCl/HF} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \qquad \text{(Eq. 2)}$$

Where:

$L_{tiHCl/HF}$ = The HCl emission limit for individual emission unit in 40 CFR 63.1505 (i)(4) of this section for a group 1 furnace or in 40 CFR 63.1505 (j)(1) of this section for an in-line fluxer; or the HF emission limit for individual emission unit i in 40 CFR 63.1505 (i)(4) of this section for an uncontrolled group 1 furnace; and

$L_{cHCl/HF}$ = The daily HCl or HF emission limit for the secondary aluminum processing unit which is used to calculate the 3-day, 24-hour HCl or HF emission limit applicable to the Secondary aluminum processing unit (SAPU).

NOTE: Only uncontrolled group 1 furnaces are included in this HF limit calculation. In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the HCl or HF limit.

Testing

C. Pursuant to 39.5(7)(b) of the Act, within 24 month the granting of this permit and every 60 months thereafter, the Permittee shall conduct performance test for Rotary Furnace (RF1) and Rotary Furnace (RF3) as follows:

I. Pursuant to 40 CFR 63.1512(d)(1) and (2), each Rotary Furnace RF1 and RF3 that processes scrap other than clean charge materials or clean charge materials with emissions controlled by a lime-injected fabric filter must conduct performance tests to measure emissions of HCl at the outlet (for the emission limit).

II. Pursuant to Construction Permit #11050038, HCl emissions would be tested while using high amounts of reactive flux, which, under the terminology used in this permit, would involve processing "organic-free material". [T1]

III. The following USEPA test methods shall be used for testing HCL emissions unless other USEPA Methods are approved by the Illinois EPA:

Location of Sample Points	Method 1
Gas Flow and Velocity	Method 2
Flue Gas Weight	Method 3
Moisture	Method 4
Concentration of HCl	Method 26 and26A

IV. Pursuant to 40 CFR 63.1511(c)(9), where a lime-injected fabric filter is used as the control device to comply with the 90 percent reduction standard, the owner or operator must measure the fabric filter inlet concentration of HCl at a point before lime is introduced to the system.

D. The Permittee shall comply with all the requirements of Section 7.1.

Recordkeeping

E. Pursuant to 39.5(7)(b) of the Act, the Permittee shall keep records of the monthly and annual HCl emissions with supporting documentation and calculations

F. Pursuant to 40 CFR 63.1510(t), the Permittee must calculate and record the 3-day, 24-hour rolling average emissions of HCl for each secondary aluminum processing unit on a daily basis. To calculate the 3-day, 24-hour rolling average, the owner or operator must:

I. Calculate and record the total weight of material charged to each emission unit in the secondary aluminum processing unit for each 24-hour day of operation using the feed/charge weight information required in Condition 4.1.2(i)(i)(C) and.40 CFR 63.1510(e). If the owner or operator chooses to comply on the basis of weight of aluminum produced by the emission unit, rather than weight of material charged to the emission unit, all performance test emissions results and all calculations must be conducted on the aluminum production weight basis.

II. Multiply the total feed/charge weight to the emission unit, or the weight of aluminum produced by the emission unit, for each emission unit for the 24-hour period by the emission rate (in lb/ton of feed/charge) for that emission unit (as determined during the performance test) to provide emissions for each emission unit for the 24-hour period, in pounds.

1. Where no performance test has been conducted, for a particular emission unit, because the owner of operator has, with the approval of the permitting authority for major sources, or the Administrator for area sources, chosen to determine the emission rate of an emission unit by testing a representative unit, in accordance with 40 CFR 63.1511(f), the owner or operator shall use the emission rate determined from the representative unit in the SAPU emission rate calculation required in 40 CFR 63.1510(t)(4).

2. Except as provided in paragraph (t)(2)(iii) of this section, if the owner or operator has not conducted performance tests for HCl (and HF for an uncontrolled group 1 furnace) or for HCl for an in-line fluxer, in accordance with the provisions of 40 CFR 63.1512(d)(3), (e)(3), or (h)(2), the calculation required in 40 CFR 63.1510(t)(4) to determine SAPU-wide HCl and HF emissions shall be made under the assumption that all chlorine contained in reactive flux added to the emission unit is emitted as HCl and all fluorine contained in reactive flux added to the emission unit is emitted as HF.

3. Prior to the date by which the initial performance test for HF emissions from uncontrolled group 1 furnaces is conducted, or is required to be conducted, the calculation required in 40 CFR 63.1505(k) to determine the SAPU-wide HF emission limit and the calculation required in 40 CFR 63.1510(t)(4) to determine the SAPU-wide HF emission rate must exclude HF emissions from untested uncontrolled group 1 furnaces and feed/charge processed in untested uncontrolled group 1 furnaces.

III. Divide the total emissions for each SAPU for the 24-hour period by the total material charged to the SAPU, or the weight of aluminum produced by the SAPU over the 24-hour period to provide the daily emission rate for the SAPU.

IV. Compute the 24-hour daily emission rate using Equation 4, 40 CFR 63.1510(t).

V. Calculate and record the 3-day, 24-hour rolling average for each pollutant each day by summing the daily emission rates for each pollutant over the 3 most recent consecutive days and dividing by 3. The SAPU is in compliance with an applicable emission limit if the 3-day, 24-hour rolling average for each pollutant is no greater than the applicable SAPU emission limit determined in accordance with 40 CFR 63.1505(k)(1)-(3).

h. i. Dioxin/furan (D/F) Requirements

A. Pursuant to Table 1 of 40 CFR 63.1505(a) and 40 CFR 63.1505(i), for Rotary Furnaces RF1 and RF3, Dioxin/furan (D/F) Emissions, without a clean charge, shall not exceed 15 µg D/F TEQ per Mg (2.1 x 10-4 gr TEQ per ton) of feed/charge.

ii. Compliance Method (Dioxin/furan (D/F) Requirements)

Monitoring

A. Pursuant to 40 CFR 63.1505(k)(3), the Permittee must not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of D/F in excess of Equation 3 ,40 CFR 63.1510(k)(3).

I. The owner or operator must not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of D/F in excess of:

$$L_{cD/F} = \frac{\sum_{i=1}^{n}\left(L_{tiD/F} \times T_i\right)}{\sum_{i=1}^{n}\left(T_i\right)} \qquad \text{(Eq. 3)}$$

Where:

$L_{tiD/F}$ = The D/F emission limit for individual emission unit i in 40 CFR 63.1505 (i)(3) of this section for a group 1 furnace; and

$L_{cD/F}$ = The daily D/F emission limit for the secondary aluminum processing unit which is used to calculate the 3-day, 24-hour D/F emission limit applicable to the SAPU.

NOTE: Clean charge furnaces cannot be included in this calculation since they are not subject to the D/F limit.

Testing

B. Pursuant to 39.5(7)(b) of the Act, within 24 month the granting of this permit and every 60 months thereafter, the Permittee shall conduct performance test for Rotary Furnace (RF1) and Rotary Furnace (RF3) as follows:

I. Pursuant to 40 CFR 63.1512(d)(1) and (2), each Rotary Furnace RF1 and RF3 that processes scrap other than clean charge materials or clean charge materials with emissions controlled by a lime-injected fabric filter must conduct performance tests to measure emissions of D/F at the outlet of the control device.

II. Pursuant to Construction Permit #11050038, D/F emissions would be tested while processing oil containing materials, which would be considered processing "other material". [T1]

III. The following USEPA test methods shall be used for testing emissions unless other USEPA Methods are approved by the Illinois EPA:

Location of Sample Points	Method 1
Gas Flow and Velocity	Method 2
Flue Gas Weight	Method 3
Moisture	Method 4
the concentration of D/F.	Method 23

C. The Permittee shall comply with all the requirements of Section 7.1.

Recordkeeping

D. Pursuant to 40 CFR 63.1510(t), the Permittee must calculate and record the 3-day, 24-hour rolling average emissions of D/F for each secondary aluminum processing unit on a daily basis. To calculate the 3-day, 24-hour rolling average, the owner or operator must:

I. Calculate and record the total weight of material charged to each emission unit in the secondary aluminum processing unit for each 24-hour day of operation using the feed/charge weight information required in Condition 4.1.2(i)(i)(C) and 40 CFR 63.1510(e). If the owner or operator chooses to comply on the basis of weight of aluminum produced by the emission unit, rather than weight of material charged to the emission unit, all performance test emissions results and all calculations must be conducted on the aluminum production weight basis.

II. Multiply the total feed/charge weight to the emission unit, or the weight of aluminum produced by the emission unit, for each emission unit for the 24-hour period by the emission rate (in lb/ton of feed/charge) for that emission unit (as determined during the performance test) to provide emissions for each emission unit for the 24-hour period, in pounds.

1. Where no performance test has been conducted, for a particular emission unit, because the owner of operator has, with the approval of the permitting authority for major sources, or the Administrator for area sources, chosen to determine the emission rate of an emission unit by testing a representative unit, in accordance with 40 CFR 63.1511(f), the owner or operator shall use the emission rate determined from the representative unit in the SAPU emission rate calculation required in 40 CFR 63.1510(t)(4).

III. Divide the total emissions for each SAPU for the 24-hour period by the total material charged to the SAPU, or the weight of aluminum produced by the SAPU over the 24-hour period to provide the daily emission rate for the SAPU.

IV. Compute the 24-hour daily emission rate using Equation 4, 40 CFR 63.1510(t).

V. Calculate and record the 3-day, 24-hour rolling average for each pollutant each day by summing the daily emission rates for each pollutant over the 3 most recent consecutive days and dividing by 3.

The SAPU is in compliance with an applicable emission limit if the 3-day, 24-hour rolling average for each pollutant is no greater than the applicable SAPU emission limit determined in accordance with 40 CFR 63.1505(k)(1)-(3).

i. i. **Operational and Production Requirements**

A. Pursuant to 40 CFR 63.1506(b), the Permittee must provide and maintain easily visible labels posted at each Rotary Furnaces RF1 and RF3 that identifies the applicable emission limits and means of compliance, including:

I. The type of affected source or emission unit (e.g., scrap dryer/delacquering kiln/decoating kiln, group 1 furnace, group 2 furnace, in-line fluxer).

II. The applicable operational standard(s) and control method(s) (work practice or control device). This includes, but is not limited to, the type of charge to be used for a Rotary Furnaces RF1 and RF3 (e.g., clean scrap only, all scrap, etc.), flux materials and addition practices, and the applicable operating parameter ranges and requirements as incorporated in the OM&M plan.

B. Pursuant to 40 CFR 63.1506(d), Rotary Furnaces RF1 and RF3 emission limit in kg/Mg (lb/ton) or µg/Mg (gr/ton) of feed/charge must:

I. Except as provided in condition 4.1.2(k)(i)(C)(III)40 CFR 63.1506(d)(3), install and operate a device that measures and records or otherwise determine the weight of feed/charge (or throughput) for each operating cycle or time period used in the performance test; and

II. Operate each weight measurement system or other weight determination procedure in accordance with the OM&M plan.

III. The owner or operator may choose to measure and record aluminum production weight from an affected source or emission unit rather than feed/charge weight to an affected source or emission unit, provided that:

1) The aluminum production weight, rather than feed/charge weight is measured and recorded for all emission units within a SAPU; and

2) All calculations to demonstrate compliance with the emission limits for SAPUs are based on aluminum production weight rather than feed/charge weight.

C. Pursuant to 40 CFR 63.1506(m), for the baghouses that control PM emissions from Rotary Furnaces RF1 and RF3, the Permittee shall calibrate, maintain, and continuously operate a bag leak detection system as follow:

I. If a bag leak detection system is used to meet the monitoring requirements in 40 CFR 63.1510, the owner or operator must:

1. Initiate corrective action within 1 hour of a bag leak detection system alarm.

2. Complete the corrective action procedures in accordance with the OM&M plan.

3. Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall

II. Maintain the 3-hour block average inlet temperature for each fabric filter at or below the average temperature established during the performance test, plus 14 °C (plus 25 °F).

III. For a continuous lime injection system, maintain free-flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at or above the level established during the performance test.

IV. The operation of capture/collection systems and control devices associated with natural gas-fired, propane-fired or electrically heated group 1 furnaces that will be idled for at least 24 hours after the furnace cycle has been completed may be temporarily stopped. Operation of these capture/collection systems and control devices must be restarted before feed/charge, flux or alloying materials are added to the furnace.

D. Pursuant to Construction Permit #11050038, the total amount of feed material processed by Rotary Furnaces RF1 and RF3 shall not exceed 8,750 tons/month and 87,500 tons/year. For this purpose, the amount of, feed materials processed shall only consider aluminum containing materials and shall not consider fluxes, synthetic slag and other materials used during processing aluminum containing of material. [T1]

E. Pursuant to Construction Permit #11050038, the total amount of feed material other than "organic free material" processed by the Rotary Furnaces RF1 and RF3 shall not exceed 3,500 tons/month and 35,000 tons/year. For this purpose, "organic-free material" means clean charge as defined by 40 CFR 63.1503, (e.g., aluminum ingots and aluminum scrap that is entirely free of paints, coating and lubricants) and concentrate, dross and salt flux (i.e., byproduct materials from aluminum furnaces and production processes). Other materials means materials other than organic-free material, including unprocessed scrap chips and painted aluminum siding. [T1]

F. Pursuant to Construction Permit #11050038, the amount for salt cake processed shall not exceed 5000 tons/month and 50,000 tons/year. [T1]

G. Pursuant to Construction Permit #11050038, the holding furnaces FH1 & FH2 at the plant shall only be operated as group 2 furnaces as addressed by 40 CFR 63.1506(o). [T1]

H. Pursuant to 40 CFR 63.1506(o), the Permittee shall operate holding furnaces FH1 & FH2 in accordance with the following:

I. Operate each furnace using only clean charge as the feedstock.

II. Operate each furnace using no reactive flux.

ii. Compliance Method (Operational and Production Requirements)

Monitoring

A. Pursuant to 40 CFR 63.1510(c), the Permittee must inspect the labels for each Rotary Furnaces RF1 and RF3 at least once per calendar month to confirm that posted labels as required by the operational standard in 40 CFR 63.1506(b) are intact and legible.

B. Pursuant to 40 CFR 63.1510(f), the lime-injected fabric filters which control PM emissions from Rotary Furnaces RF1 and RF3 shall comply with following requirements:

I. The Permittee must install and operate a bag leak detection system for each exhaust stack of a fabric filter.

II. Each bag leak detection system must be installed, calibrated, operated, and maintained according to the manufacturer's operating instructions.

III. The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

IV. The bag leak detection system sensor must provide output of relative or absolute PM loadings.

V. The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

VI. The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

VII. For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter.

VIII. Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

IX. The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.

X. Following initial adjustment of the system, the Permittee must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the OM&M plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition.

D. Pursuant to 39.5(7)(b) of the Act, compliance with the annual amount of, feed materials for the Rotary Furnaces RF1 and RF3 condition 4.1.2(i)(ii)(D) shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running total 12 months of data).

E. Pursuant to 39.5(7)(b) of the Act, compliance with the annual amount of, feed materials other than "organic free material" Condition 4.1.2(i)(ii)(E)

for the Rotary Furnaces RF1 and RF3 shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running total 12 months of data).

F. Pursuant to 39.5(7)(b) of the Act, compliance with the annual for salt cake processed for the Salt Cake Handling condition 4.1.2(i)(ii)(F) shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running total 12 months of data).

Recordkeeping

G. Pursuant to 39.5(7)(b) of the Act, the Permittee shall keep records of the monthly and annual feed material usage Condition 4.1.2(i)(ii)(D) with supporting documentation and calculations

H. Pursuant to 39.5(7)(b) of the Act, the Permittee shall keep records of the monthly and annual feed material other than "organic free material" usage Condition 4.1.2(i)(ii)(E) with supporting documentation and calculations

I. Pursuant to 39.5(7)(b) of the Act, the Permittee shall keep records of the monthly and annual for salt cake usage Condition 4.1.2(i)(ii)(F) with supporting documentation and calculations

J. Pursuant to 40 CFR 63.1517(b), the Permittee shall maintain the following records:

I. For each affected source and emission unit with emissions controlled by a fabric filter or a lime-injected fabric filter:

1. Bag leak detection system is used, the number of total operating hours for the affected source or emission unit during each 6-month reporting period, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action(s) taken.

II. For each affected source and emission unit with emissions controlled by a lime-injected fabric filter:

1. Records of inspections at least once every 8-hour period verifying that lime is present in the feeder hopper or silo and flowing, including any inspection where blockage is found, with a brief explanation of the cause of the blockage and the corrective action taken, and records of inspections at least once every 4-hour period for the subsequent 3 days. If flow monitors, pressure drop sensors or load cells are used to verify that lime is present in the hopper and flowing, records of all monitor or sensor output including any event where blockage was found, with a brief explanation of the cause of the blockage and the corrective action taken;

2. If lime feeder setting is monitored, records of daily and monthly inspections of feeder setting, including records of any deviation of the feeder setting from the setting used in the performance test, with a brief explanation of the cause of the deviation and the corrective action taken. If a lime feeder has been repaired or replaced, this action must be documented along with records of the new feeder calibration and the feed mechanism set points necessary to maintain the lb/hr feed rate operating limit. These records must be maintained on site and available upon request.

III. For each continuous monitoring system, records required by 40 CFR 63.10(c).

IV. For each affected source and emission unit subject to an emission standard in kg/Mg (lb/ton) of feed/charge, records of feed/charge (or throughput) weights for each operating cycle or time period used in the performance test.

V. Approved site-specific monitoring plan for a group 1 furnace without add-on air pollution control devices with records documenting conformance with the plan.

VI. Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements.

VII. Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including:

1. OM&M plan; and

2. Site-specific secondary aluminum processing unit emission plan (if applicable).

VIII. For each secondary aluminum processing unit, records of total charge weight, or if the owner or operator chooses to comply on the basis of aluminum production, total aluminum produced for each 24-hour period and calculations of 3-day, 24-hour rolling average emissions.

IX. For any failure to meet an applicable standard, the Permittee must maintain the following records;

I. Records of the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken.

II. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.1506(a)(5), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

X. For each period of startup or shutdown for which the Permittee chooses to demonstrate compliance for an affected source, the Permittee must comply with 40 CFR 63.1517(b)(19)(i) or (ii).

1. To demonstrate compliance based on a feed/charge rate of zero, a flux rate of zero and the use of electricity, propane or natural gas as the sole sources of heating or the lack of heating, the Permittee must submit a semiannual report in accordance with 40 CFR 63.1516(b)(2)(vii) or maintain the following records:

aa. The date and time of each startup and shutdown;

bb. The quantities of feed/charge and flux introduced during each startup and shutdown; and

cc. The types of fuel used to heat the unit, or that no fuel was used, during startup and shutdown; or

2. To demonstrate compliance based on performance tests, the Permiteee must maintain the following records:

aa. The date and time of each startup and shutdown;

bb. The measured emissions in lb/hr or µg/hr or ng/hr;

cc. The measured feed/charge rate in tons/hr or Mg/hr from your most recent performance test associated with a production rate greater than zero, or the rated capacity of the affected source if no prior performance test data is available; and

dd. An explanation to support that such conditions are considered representative startup and shutdown operations.

j. i. <u>Work Practice and Control Requirements</u>

A. Pursuant to Section 39.5(7)(a) of the Act, the Permittee shall use pipeline natural gas with a certification from the natural gas supplier that the sulfur content in the supplied natural gas does not exceed 2000 ppm.

B. Pursuant to 40 CFR 63.1506(c), the Permittee, Capture/collection systems. for each Rotary Furnaces RF1 and RF3 emission unit equipped with an add-on air pollution control device, the Permittee must:

I. Design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates or facial inlet velocities as contained in the ACGIH Guidelines (incorporated by reference, see 40 CFR 63.14);

II. Vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to a fabric filter; and

III. Operate each capture/collection system according to the procedures and requirements in the OM&M plan.

C. Pursuant to 40 CFR 63.1510, the Permittee shall conduct monitoring for the Rotary Furnaces RF1 and RF3 for the following operating parameters:

I. Feed/charge weight to the furnace

II. Reactive flux injection rate

III. Inlet gas temperature to the baghouse

IV. Lime flow to each baghouse (setting and presence, 40 CFR 63.1510(i)).

V. "Bag leaks" for each baghouse, with bag leak detection system on each baghouse, in accordance with 40 CFR 63.1510(f).

VI. Opacity when visible emissions are observed (percent).

D. Pursuant to 40 CFR 63.1510(e), the Permittee shall install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, for the Rotary Furnaces RF1 and RF3 over the same operating cycle or time period used in the performance

test. Feed/charge or aluminum production within SAPUs must be measured and recorded on an emission unit-by-emission unit basis.

I. The accuracy of the weight measurement device or procedure must be ±1 percent of the weight being measured. The owner or operator may apply to the permitting agency for approval to use a device of alternative accuracy if the required accuracy cannot be achieved as a result of equipment layout or charging practices. A device of alternative accuracy will not be approved unless the owner or operator provides assurance through data and information that the affected source will meet the relevant emission standard.

II. The Permittee must verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months.

ii. Compliance Method (Work Practice Requirements)

Monitoring

A. Pursuant to 40 CFR 63.1510(b), the Permittee must prepare and implement for each Rotary Furnaces RF1 and RF3, a written OM&M plan. Each plan must contain the following information:

I. Process and control device parameters to be monitored to determine compliance, along with established operating levels or ranges, as applicable, for each process and control device.

II. A monitoring schedule for each affected source and emission unit.

III. Procedures for the proper operation and maintenance of each process unit and add-on control device used to meet the applicable emission limits or standards 40 CFR 63.1505.

IV. Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including:

1) Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions; and

2) Procedures for the quality control and quality assurance of continuous emission or opacity monitoring systems as required by the requirements of Section 7.4.

V. Procedures for monitoring process and control device parameters, including lime injection rates, procedures for annual inspections of afterburners, and if applicable, the procedure to be used for determining charge/feed (or throughput) weight if a measurement device is not used.

VI. Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in Condition 4.1.2(k)(ii)(A)(I)) of this section, including:

1) Procedures to determine and record the cause of any deviation or excursion, and the time the deviation or excursion began and ended; and

2) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed.

VII. A maintenance schedule for each process and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.

VIII. Documentation of the work practice and pollution prevention measures used to achieve compliance with the applicable emission limits and a site-specific monitoring plan as required in paragraph (o) of this section for each group 1 furnace not equipped with an add-on air pollution control device.

IX. Procedures to be followed when changing furnace classifications under the provisions of 40 CFR 63.1514.

B. Pursuant to 40 CFR 63.1510(d), the Permittee must monitor each Rotary Furnace RF1 and RF3 Capture/collection system as follow:

I. Install, operate, and maintain a capture/collection system for each affected source and emission unit equipped with an add-on air pollution control device; and

II. Inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in 40 CFR 63.1506(c) and record the results of each inspection. This inspection shall include a volumetric flow rate measurement taken at a location in the ductwork downstream of the hoods that is representative of the actual volumetric flow rate without interference due to leaks, ambient air added for cooling or ducts from other hoods. The flow rate measurement must be performed in accordance with40 CFR 63.1510(d)(2)(i), (ii), or (iii).

C. Pursuant to 40 CFR 63.1510(f), the Permittee using a fabric filter or lime-injected fabric filter to comply with the requirements 40 CFR 63 subpart RRR must install, calibrate, maintain, and continuously operate a bag leak detection system as required in 40 CFR 63.1510(f)(1):

I. These requirements apply to the owner or operator of a new or existing affected source or existing emission unit using a bag leak detection system.

1) The owner or operator must install and operate a bag leak detection system for each exhaust stack of a fabric filter.

2) Each bag leak detection system must be installed, calibrated, operated, and maintained according to the manufacturer's operating instructions.

3) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

4) The bag leak detection system sensor must provide output of relative or absolute PM loadings.

5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

7) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter.

8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

9) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.

10) Following initial adjustment of the system, the owner or operator must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the OM&M plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition.

D. Pursuant to 40 CFR 63.1510(h), the Permittee must monitor Fabric filter inlet temperature:

I. The owner or operator must install, calibrate, maintain, and operate a device to continuously monitor and record the temperature of the fabric filter inlet gases consistent with the requirements for continuous monitoring by the requirements of Section 7.4.

II. The temperature monitoring device must meet each of these performance and equipment specifications:

1) The monitoring system must record the temperature in 15-minute block averages and calculate and record the average temperature for each 3-hour block period.

2) The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in 40 CFR 63.1512(n).

3) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.

E. Pursuant to 40 CFR 63.1510(i), the Permittee must monitor Lime injection:

I. Continuous lime injection system must verify that lime is always free-flowing by either:

1) Inspecting each feed hopper or silo at least once each 8-hour period and recording the results of each inspection. If lime is found not to be free-flowing during any of the 8-hour periods,

the owner or operator must increase the frequency of inspections to at least once every 4-hour period for the next 3 days. The owner or operator may return to inspections at least once every 8 hour period if corrective action results in no further blockages of lime during the 3-day period.

2) Subject to the approval of the permitting agency, installing, operating and maintaining a load cell, carrier gas/lime flow indicator, carrier gas pressure drop measurement system or other system to confirm that lime is free-flowing. If lime is found not to be free-flowing, the Permittee must promptly initiate and complete corrective action, or

3) Subject to the approval of the IEPA, installing, operating and maintaining a device to monitor the concentration of HCl at the outlet of the fabric filter. If an increase in the concentration of HCl indicates that the lime is not free-flowing, the owner or operator must promptly initiate and complete corrective action.

II. The Permittee of a continuous lime injection system must record the lime feeder setting once each day of operation.

Testing

F. Pursuant to, 40 CFR 63.1512(n), the Permittee establish an operating parameter value or range for the inlet gas temperature:

I. Continuously measure and record the temperature at the inlet to the lime-injected fabric filter every 15 minutes during the HCl and D/F performance tests conditions 4.1.2(g)(ii)(C) and (h)(ii)(B);

II. Determine and record the 15-minute block average temperatures for the 3 test runs; and

III. Determine and record the 3-hour block average of the recorded temperature measurements for the 3 test runs.

G. Pursuant to 40 CFR 63.1512(p), the Permittee using a lime-injected fabric filter system must use these procedures during the HCl and D/F tests conditions 4.1.2(g)(ii)(C) and (h)(ii)(B) to establish an operating parameter value for the feeder setting for each operating cycle or time period used in the performance test.

I. For continuous lime injection systems, ensure that lime in the feed hopper or silo is free-flowing at all times; and

II. Record the feeder setting and lime injection rate for the 3 test runs. If the feed rate setting and lime injection rates vary between the runs, determine and record the average feed rate and lime injection rate from the 3 runs.

H. The Permittee shall comply with all the requirements of Section 7.1.

Recordkeeping

I. Pursuant to 40 CFR 63.1510(h)(2), the Fabric filter monitoring system must:

I. The monitoring system must record the temperature in 15-minute block averages and calculate and record the average temperature for each 3-hour block period.

II. The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in 40 CFR 63.1512(n).

J. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall keep the records of sulfur content in used pipeline quality natural gas.

K. The Permittee shall maintain the records required by the NESHAP for the furnaces, including the records required by 40 CFR 63.1506, 63.1510 and 63.1516.

L. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain the following records for the furnaces;

I. Aluminum process rate (tons/month and tons/year) separately for oil-containing scrap and clean feed scrap;

II. Flux usage rate (tons/month and tons/year, by type or category);

III. Usage of lime for injection to the baghouse (tons/month and tons/year).

3. Non-Applicability Determinations

a. This permit is issued based on the affected furnaces not being subject to the requirements of 35 IAC Part 218 Subpart TT (Other Emission Units). This is a consequence of the production and operating limitations of Condition 4.1.2(d)(i)(C), which restrict the plant's VOM emissions to emit volatile organic materials (VOM) to 22.8 tons/year less than 25 tons per year.

b. The Secondary Aluminum Production are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the Secondary Aluminum Production does not use an add-on control device to achieve compliance with an SO_2, VOM, and NO_X emission limitation or standard.

c. The Secondary Aluminum Production are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the Secondary Aluminum Production PM, HCl and D/F emissions are subject to a NESHAP proposed after November 15, 1990, pursuant to 40 CFR 64.2(b)(1)(i).

4. Other Requirements

As of the date of issuance of this permit, there are no other requirements that need to be included in this Condition.

5. Reporting Requirements

The Permittee shall submit the following information pursuant to Section 39.5(7)(f) of the Act. Addresses are included in Attachment 3.

a. <u>Prompt Reporting</u>

i. A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA, Air Compliance Section, within 30 days of deviations from applicable requirements as follows unless a different period is specified by a particular permit provision, i.e., NSPS or NESHAP requirement:

I. Requirements in Conditions 4.1.2(a)(i), 4.1.2(b)(i),4.1.2(c)(i), 4.1.2(d)(i), 4.1.2(e)(i), 4.1.2(f)(i), 4.1.2(h)(i), 4.1.2(i)(i), and 4.1.2(j)(i).

B. All such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).

ii. The Permittee shall notify the IEPA, Air Compliance Section, of all other deviations as part of the Semiannual Monitoring Report required by Condition 3.5(b).

iii. The deviation reports shall contain at a minimum the following information:

A. Date and time of the deviation.

B. Emission unit(s) and/or operation involved.

C. The duration of the event.

D. Probable cause of the deviation.

E. Corrective actions or preventative measures taken.

b. **Federal Reporting**

I. Pursuant to 40 CFR 63.1516, semiannual compliance reports shall be submitted to the Compliance Section no later than July 31 or January 31 following the end of the semiannual compliance period and according to the requirements of 40 CFR 63.1516(b)through (e). The semiannual compliance reports shall be combined with the semiannual monitoring reports required by this permit.

Section 5 - Additional Title I Requirements

This Section is reserved for Title I requirements not specified in Sections 3 or 4. As of the date of issuance of this permit, there are no Title I requirements that need to be separately addressed in this Section.

Section 6 - Insignificant Activities Requirements

1. Insignificant Activities Subject to Specific Regulations

This condition is reserved for insignificant activities, as defined in 35 IAC 201.210 and 201.211, which are subject to specific standards promulgated pursuant Sections 111, 112, 165, or 173 of the Clean Air Act, see Sections 9.1(d) and 39.5(6)(a) of the Act. As of the date of issuance of this permit, there are no such insignificant activities present at the source.

2. Insignificant Activities in 35 IAC 201.210(a)

In addition to any insignificant activities identified in Condition 6.1, the following additional activities at the source constitute insignificant activities pursuant to 35 IAC 201.210 and 201.211

Insignificant Activity	*Number of Units*	*Insignificant Activity Category*
Diesel Tank	1	201.210(a)(10) Capacity < 10,000 gallons
Assay Pot	1	201.210(a)(6) Capacity < 450 cubic inches
Comfort Heater 1	1	201.210(a)(4)(A) Capacity < 2.5 MMBtU/hr
Comfort Heater 2	1	201.210(a)(4)(A) Capacity < 2.5 MMBtU/hr
Comfort Heater 3	1	201.210(a)(4)(A) Capacity < 2.5 MMBtU/hr
Comfort Heater 4	1	201.210(a)(4)(A) Capacity < 2.5 MMBtU/hr
Comfort Heater 5	1	201.210(a)(4)(A) Capacity < 2.5 MMBtU/hr
Comfort Heater 6	1	201.210(a)(4)(A) Capacity < 2.5 MMBtU/hr
Comfort Heater 7	1	201.210(a)(4)(A) Capacity < 2.5 MMBtU/hr
Comfort Heater 8	1	201.210(a)(4)(A) Capacity < 2.5 MMBtU/hr
Comfort Heater 9	1	201.210(a)(4)(A) Capacity < 2.5 MMBtU/hr
Comfort Heater 10	1	201.210(a)(4)(A) Capacity < 2.5 MMBtU/hr
Comfort Heater 11	1	201.210(a)(4)(A) Capacity < 2.5 MMBtU/hr
Comfort Heater 12	1	201.210(a)(4)(A) Capacity < 2.5 MMBtU/hr
Trough Heater	3	201.210(a)(3) Emissions < 0.44 tons per year of regulated pollutant
Surge Bowl Heater	2	201.210(a)(3) Emissions < 0.44 tons per year of regulated pollutant

3. Insignificant Activities in 35 IAC 201.210(b)

Pursuant to 35 IAC 201.210, the source has identified insignificant activities as listed in 35 IAC 201.210(b)(1) through (28) as being present at the source. The source is not required to individually list the activities.

4. Applicable Requirements

Insignificant activities in Conditions 6.1 and 6.2 are subject to the following general regulatory limits notwithstanding status as insignificant activities. The Permittee shall comply with the following requirements, as applicable:

a. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 IAC 212.122, except as provided in 35 IAC 212.123(b).

b. Pursuant to 35 IAC 212.321 or 212.322 (see Conditions 7.2(a) and (b)), no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceed the allowable emission rates specified 35 IAC 212.321 or 212.322 and 35 IAC Part 266.

5. Compliance Method

Pursuant to Section 39.5(7)(b) of the Act, the source shall maintain records of the following items for the insignificant activities in Conditions 6.1 and 6.2:

a. List of all insignificant activities, including insignificant activities added as specified in Condition 6.6, the categories the insignificant activities fall under, and supporting calculations as needed for any insignificant activities listed in 35 IAC 201.210(a)(1) through (3).

b. Potential to emit emission calculations before any air pollution control device for any insignificant activities listed in 35 IAC 201.210(a)(1) through (3).

6. Notification Requirements for Insignificant Activities

The source shall notify the IEPA accordingly to the addition of insignificant activities:

a. <u>Notification 7 Days in Advance</u>

i. Pursuant to 35 IAC 201.212(b), for the addition of an insignificant activity that would be categorized under 35 IAC 201.210(a)(1) and 201.211 and is not currently identified in Conditions 6.1 or 6.2, a notification to the IEPA Permit Section 7 days in advance of the addition of the insignificant activity is required. Addresses are included in Attachment 3. The notification shall include the following pursuant to 35 IAC 201.211(b):

A. A description of the emission unit including the function and expected operating schedule of the unit.

B. A description of any air pollution control equipment or control measures associated with the emission unit.

C. The emissions of regulated air pollutants in lbs/hr and tons/yr.

D. The means by which emissions were determined or estimated.

E. The estimated number of such emission units at the source.

F. Other information upon which the applicant relies to support treatment of such emission unit as an insignificant activity.

ii. Pursuant to 35 IAC 201.212(b), for the addition of an insignificant activity that would be categorized under 35 IAC 201.210(a)(2) through 201.210(a)(18) and is not currently identified in Conditions 6.1 or 6.2, a notification to the IEPA Permit Section 7 days in advance of the addition of the insignificant activity is required. Addresses are included in Attachment 3.

iii. Pursuant to Sections 39.5(12)(a)(i)(b) and 39.5(12)(b)(iii) of the Act, the permit shield described in Section 39.5(7)(j) of the Act (see Condition 2.7) shall not apply to any addition of an insignificant activity noted above.

b. **Notification Required at Renewal**

Pursuant to 35 IAC 201.212(a) and 35 IAC 201.146(kkk), for the addition of an insignificant activity that would be categorized under 35 IAC 201.210(a) and is currently identified in Conditions 6.1 or 6.2, a notification is not required until the renewal of this permit.

c. **Notification Not Required**

Pursuant to 35 IAC 201.212(c) and 35 IAC 201.146(kkk), for the addition of an insignificant activity that would be categorized under 35 IAC 201.210(b) as described in Condition 6.3, a notification is not required.

Section 7 - Other Requirements

1. Testing

a. Pursuant to Section 39.5(7)(a) of the Act, a written test protocol shall be submitted at least sixty (60) days prior to the actual date of testing, unless it is required otherwise in applicable state or federal statutes. The IEPA may at the discretion of the Compliance Section Manager (or designee) accept protocol less than 60 days prior to testing provided it does not interfere with the IEPA's ability to review and comment on the protocol and does not deviate from the applicable state or federal statutes. The protocol shall be submitted to the IEPA, Compliance Section and IEPA, Stack Test Specialist for its review. Addresses are included in Attachment 3. This protocol shall describe the specific procedures for testing, including as a minimum:

i. The name and identification of the emission unit(s) being tested.

ii. Purpose of the test, i.e., permit condition requirement, IEPA or USEPA requesting test.

iii. The person(s) who will be performing sampling and analysis and their experience with similar tests.

iv. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the emission unit and any control equipment will be determined.

v. The specific determinations of emissions and operation which are intended to be made, including sampling and monitoring locations.

vi. The test method(s) that will be used, with the specific analysis method, if the method can be used with different analysis methods. Include if emission tests averaging of 35 IAC 283 will be used.

vii. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with detailed justification. This shall be included as a waiver of the test procedures. If a waiver has already been obtained by the IEPA or USEPA, then the waiver shall be submitted.

viii. Any proposed use of an alternative test method, with detailed justification. This shall be included as a waiver of the test procedures. If a waiver has already been obtained by the IEPA or USEPA, then the waiver shall be submitted.

ix. Sampling of materials, QA/QC procedures, inspections, etc.

x. Notwithstanding conditions 7.1 above, a test plan need not be submitted under the following circumstances:

A. Where the Permittee intends to utilize a test plan previously submitted. However, the Permittee must submit a notice containing the following:

I. The purpose of the test;

II. Date the previously submitted test plan was submitted; and

III. A statement that the source is relying on a previously submitted test plan.

B. Where the source intends to use a standard test method or procedure. However, the Permittee must submit a notice containing the following:

I. The purpose of the test; and

II. The standard test method or procedure to be used.

b. The IEPA, Compliance Section shall be notified prior to these tests to enable the IEPA to observe these tests pursuant to Section 39.5(7)(a) of the Act as follows:

i. Notification of the expected date of testing shall be submitted in writing a minimum of thirty (30) days prior to the expected test date, unless it is required otherwise in applicable state or federal statutes.

ii. Notification of the actual date and expected time of testing shall be submitted in writing a minimum of five (5) working days prior to the actual date of the test. The IEPA may at its discretion of the Compliance Section Manager (or designee) accept notifications with shorter advance notice provided such notifications will not interfere with the IEPA's ability to observe testing.

c. Copies of the Final Report(s) for these tests shall be submitted to the IEPA, Compliance Section within fourteen (14) days after the test results are compiled and finalized but no later than ninety (90) days after completion of the test, unless it is required otherwise in applicable state or federal statutes or the IEPA may at the discretion of the Compliance Section Manager (or designee) agree upon an alternative date upon in advance pursuant to Section 39.5(7)(a) of the Act. The Final Report shall include as a minimum:

i. General information including emission unit(s) tested.

ii. A summary of results.

iii. Discussion of conditions during each test run (malfunction/breakdown, start-up/shutdown, abnormal processing, etc.).

iv. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.

v. Detailed description of test conditions, including:

A. Process information, i.e., mode(s) of operation, process rate, e.g. fuel or raw material consumption.

B. Control equipment information, i.e., equipment condition and operating parameters during testing.

C. A discussion of any preparatory actions taken, i.e., inspections, maintenance and repair.

vi. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

vii. An explanation of any discrepancies among individual tests or anomalous data.

viii. Results of the sampling of materials, QA/QC procedures, inspections, etc.

ix. Discussion of whether protocol was followed and description of any changes to the protocol if any occurred.

x. Demonstration of compliance showing whether test results are in compliance with applicable state or federal statutes.

d. Copies of all test reports and other test related documentation shall be kept on site as required by Condition 2.5(b) pursuant to Section 39.5(7)(e)(ii) of the Act.

2. PM Process Weight Rate Requirements

a. **New Process Emission Units - 35 IAC 212.321**

New Process Emission Units for Which Construction or Modification Commenced on or After April 14, 1972. [35 IAC 212.321]

i. No person shall cause or allow the emission of PM into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of PM from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c). See Condition 7.2(a)(iii) below. [35 IAC 212.321(a)]

ii. Interpolated and extrapolated values of the data in 35 IAC 212.321(c) shall be determined by using the equation: [35 IAC 212.321(b)]

$$E = A(P)^B$$

Where:

P = Process weight rate (T/hr)
E = Allowable emission rate (lbs/hr)

A. Process weight rates of less than 450 T/hr:

A = 2.54
B = 0.53

B. Process weight rates greater than or equal to 450 T/hr:

A = 24.8
B = 0.16

iii. Limits for New Process Emission Units: [35 IAC 212.321(c)]

P (T/hr)	E (lbs/hr)	P (T/hr)	E (lbs/hr)
0.05	0.55	25.00	14.00
0.10	0.77	30.00	15.60
0.20	1.10	35.00	17.00
0.30	1.35	40.00	18.20
0.40	1.58	45.00	19.20
0.50	1.75	50.00	20.50
0.75	2.40	100.00	29.50
1.00	2.60	150.00	37.00
2.00	3.70	200.00	43.00
3.00	4.60	250.00	48.50
4.00	5.35	300.00	53.00
5.00	6.00	350.00	58.00
10.00	8.70	400.00	62.00
15.00	10.80	450.00	66.00
20.00	12.50	500.00	67.00

3. Emissions Reduction Market System (ERMS) Requirements

a. Pursuant to 35 IAC Part 205, ERMS seasonal emissions of VOM during the seasonal allotment period from May 1 through September 30 shall not exceed 15 tons/year, not including VOM emissions from insignificant emission units and activities as identified in Section 6 of this permit.

b. Pursuant to 35 IAC 205, the Permittee shall maintain the following records to determine compliance with the above limitation:

i. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as specified in Sections 3 and 4 of this permit, as appropriate, to determine actual VOM emissions during the seasonal allotment period.

ii. Records of the VOM emissions, in tons, during the seasonal allotment period, with supporting calculations, for each individual emission unit or group of related emission units at the source, determined in accordance with the procedures specified in Sections 3 and 4 of this permit.

iii. Total VOM emissions from the source, in tons, during each seasonal allotment period.

c. Pursuant to 35 IAC 205.205(b) and 35 IAC 205.300, the Permittee shall submit the seasonal emissions component of the Annual Emissions Report by November 31 of each year, reporting actual emissions of VOM during the seasonal allotment period.

d. Pursuant to 35 IAC Section 205.150(c), in the event that the source's VOM emissions during the seasonal allotment period exceed 15 tons, the source shall no longer be exempt from the ERMS and shall immediately comply with 35 IAC Part 205, including holding allotment trading units (ATUs) for its VOM emissions during the first seasonal allotment period it exceeded 15 tons and each seasonal allotment period thereafter.

4. 40 CFR 63 Subpart A Requirements (NESHAP)

a. 40 CFR 63 Subpart A and RRR - National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production

Pursuant to 40 CFR 63 Subpart A and RRR, the Permittee shall comply with the following applicable General Provisions as indicated:

Citation	Requirement	Applies to RRR	Comment
40 CFR 63.1(a)(1)-(4)	General Applicability	Yes	
40 CFR 63.1(a)(5)		No	[Reserved]
40 CFR 63.1(a)(6)		Yes	
40 CFR 63.1(a)(7)-(9)		No	[Reserved]
40 CFR 63.1(a)(10)-(12)		Yes	
40 CFR 63.1(b)	Initial Applicability Determination	Yes	EPA retains approval authority.
40 CFR 63.1(c)(1)	Applicability After Standard Established	Yes	
40 CFR 63.1(c)(2)		Yes	40 CFR 63.1500(e) exempts area sources subject to this subpart from the obligation to obtain Title V operating permits.
40 CFR 63.1(c)(3)-(4)		No	[Reserved]
40 CFR 63.1(c)(5)		Yes	
40 CFR 63.1(d)		No	[Reserved]
40 CFR 63.1(e)	Applicability of Permit Program	Yes	
40 CFR 63.2	Definitions	Yes	Additional definitions in 40 CFR 63.1503.
40 CFR 63.3	Units and Abbreviations	Yes	
40 CFR 63.4(a)(1)-(2)	Prohibited Activities	Yes	
40 CFR 63.4(a)(3)-(5)		No	[Reserved]
40 CFR 63.4(b)	Circumvention	Yes	
40 CFR 63.4(c)	Fragmentation	Yes	
40 CFR 63.5(a)	Applicability of Preconstruction Review and Notification	Yes	
40 CFR 63.5(b)(1)	Requirements for Existing, Newly, Constructed Sources and Reconstructed Sources	Yes	
40 CFR 63.5(b)(2)		No	[Reserved]

40 CFR 63.5(b)(3)-(4)		Yes	
40 CFR 63.5(b)(5)		No	[Reserved]
40 CFR 63.5(b)(6)		Yes	
40 CFR 63.5(c)		No	[Reserved]
40 CFR 63.5(d)	Application for Approval of Construction or Reconstruction	Yes	
40 CFR 63.5(e)	Approval of Construction or Reconstruction	Yes	
40 CFR 63.5(f)	Approval of Construction or Reconstruction Based on Prior State Preconstruction Review	Yes	
40 CFR 63.6(a)	Applicability for Compliance with Standards and Maintenance Requirements	Yes	
40 CFR 63.6(b)(1)-(5)	Compliance Dates for New and Reconstructed Sources	Yes	40 CFR 63.1501 specifies dates.
40 CFR 63.6(b)(6)		No	[Reserved]
40 CFR 63.6(b)(7)		Yes	
40 CFR 63.6(c)(1)	Compliance Dates for Existing Sources	Yes	40 CFR 63.1501 specifies dates.
40 CFR 63.6(c)(2)		Yes	
40 CFR 63.6(c)(3)-(4)		No	[Reserved]
40 CFR 63.6(c)(5)		Yes	
40 CFR 63.6(d)		No	[Reserved]
40 CFR 63.6(e)(1)(i)	Operation and Maintenance Requirements	No	See 40 CFR 63.1506(a)(5) for general duty requirement. Any other cross reference to 40 CFR 63.6(3)(1)(i) in any other general provision referenced shall be treated as a cross reference to 40 CFR 63.1506(a)(5).
40 CFR 63.6(e)(1)(ii)		No	
40 CFR 63.6(e)(2)		No	[Reserved]
40 CFR 63.6(e)(3)	Startup, Shutdown, and Malfunction Plan	No	
40 CFR 63.6(f)(1)	Compliance with Nonopacity Emission Standards	No	
40 CFR 63.6(f)(2)		Yes	
40 CFR 63.6(g)	Use of an Alternative Nonopacity Emission Standard	No	
40 CFR 63.6(h)(1)	Applicability for Compliance with Opacity	No	

	and Visible Emission Standards		
40 CFR 63.6(h)(2)	Methods for Determining Compliance	Yes	
40 CFR 63.6(h)(3)		No	[Reserved]
40 CFR 63.6(h)(4)-(9)		Yes	
40 CFR 63.6(i)(1)-(14)	Extension of Compliance	Yes	
40 CFR 63.6(i)(15)		No	[Reserved]
40 CFR 63.6(i)(16)		Yes	
40 CFR 63.6(j)	Exemption from Compliance	Yes	
40 CFR 63.7(a)	Applicability and Performance Test Dates	Yes	Except 40 CFR 63.1511 establishes dates for initial performance tests.
40 CFR 63.7(b)	Notification of Performance Test	Yes	
40 CFR 63.7(c)	Quality Assurance Program	Yes	
40 CFR 63.7(d)	Performance Testing Facilities	Yes	
40 CFR 63.7(e)(1)	Conduct of Performance Tests	No	
40 CFR 63.7(e)(2)		Yes	
40 CFR 63.7(e)(3)		Yes	
40 CFR 63.7(f)	Use of an Alternative Test Method	Yes	
40 CFR 63.7(g)(1)-(3)	Data Analysis, Recordkeeping, and Reporting	Yes	Except for 40 CFR 63.7(g)(2), which is reserved.
40 CFR 63.7(h)(1)-(5)	Waiver of Performance Tests	Yes	
40 CFR 63.8(a)(1)	Applicability for Monitoring Requirements	Yes	
40 CFR 63.8(a)(2)		Yes	
40 CFR 63.8(a)(3)		No	[Reserved]
40 CFR 63.8(a)(4)		Yes	
40 CFR 63.8(b)	Conduct of Monitoring	Yes	
40 CFR 63.8(c)(1)(i)	Operation and Maintenance of Continuous Monitoring Systems (CMS)	No	See 40 CFR 63.1506(a)(5) for general duty requirement.
40 CFR 63.8(c)(1)(ii)		Yes	
40 CFR 63.8(c)(1)(iii)		No	
40 CFR 63.8(c)(2)-(8)		Yes	

40 CFR 63.8(d)(1)-(2)	Quality Control Program	Yes	
40 CFR 63.8(d)(3)		Yes, except for last sentence, which refers to an SSM plan. SSM plans are not required	
40 CFR 63.8(e)	Performance Evaluation of CMS	Yes	
40 CFR 63.8(f)(1)-(5)	Use of an Alternative Monitoring Method	No	40 CFR 63.1501(w) includes provisions for monitoring alternatives.
40 CFR 63.8(f)(6)	Alternative to the Relative Accuracy Test	Yes	
40 CFR 63.8(g)(1)	Reduction of Monitoring Data	Yes	
40 CFR 63.8(g)(2)		No	40 CFR 63.1512 requires five 6-minute averages for an aluminum scrap shredder.
40 CFR 63.8(g)(3)-(5)		Yes	
40 CFR 63.9(a)	Applicability and General Information for Notification Requirements	Yes	
40 CFR 63.9(b)(1)-(5)	Initial Notifications	Yes	Except 40 CFR 63.9(b)(3) is reserved.
40 CFR 63.9(c)	Request for Compliance Extension	Yes	
40 CFR 63.9(d)	Notification that Source is Subject to Special Compliance Requirements	Yes	
40 CFR 63.9(e)	Notification of Performance Test	Yes	
40 CFR 63.9(f)	Notification of Opacity and Visible Emission Observations	Yes	
40 CFR 63.9(g)	Additional Notification Requirement for Sources with CMS	Yes	
40 CFR 63.9(h)(1)-(3)	Notification of Compliance Status	Yes	Except 40 CFR 63.1515 establishes dates notification of compliance status reports.
40 CFR 63.9(h)(4)		No	[Reserved]
40 CFR 63.9(h)(5)-(6)		Yes	
40 CFR 63.9(i)	Adjustment of Deadlines for Required Communications	Yes	
40 CFR 63.9(j)	Change in Information Already Provided	Yes	
40 CFR 63.10(a)	Applicability and General Information for Recordkeeping and Reporting Requirements	Yes	

40 CFR 63.10(b)(1)	General Recordkeeping Requirements	Yes	
40 CFR 63.10(b)(2)(i), (ii), (iv), (v)		No	
40 CFR 63.10(b)(2)(iii), (vi)-(xiv)		Yes	40 CFR 63.1517 includes additional requirements.
40 CFR 63.10(b)(3)	Recordkeeping Requirement for Applicability Determinations	Yes	
40 CFR 63.10(c)(1)	Additional Recordkeeping Requirements for Sources with CMS	Yes	
40 CFR 63.10(c)(2)-(4)		No	[Reserved]
40 CFR 63.10(c)(5)		Yes	
40 CFR 63.10(c)(6)		Yes	
40 CFR 63.10(c)(7)-(8)		Yes	
40 CFR 63.10(c)(9)		No	[Reserved]
40 CFR 63.10(c)(10)-(13)		Yes	
40 CFR 63.10(c)(14)		Yes	
40 CFR 63.10(c)(15)		No	
40 CFR 63.10(d)(1)	General Reporting Requirements	Yes	
40 CFR 63.10(d)(2)	Reporting Results of Performance Tests	Yes	
40 CFR 63.10(d)(3)	Reporting Results of Opacity or Visible Emission Observations	Yes	
40 CFR 63.10(d)(4)	Progress Reports	No	See 40 CFR 63.1516(d).
40 CFR 63.10(d)(5)	Periodic Startup, Shutdown, and Malfunction Reports	No	See 40 CFR 63.1516(d).
40 CFR 63.10(e)(1)-(2)	Additional Reporting Requirements for Sources with CMS	Yes	
40 CFR 63.10(e)(3)	Excess Emissions and CMS Performance Report and Summary Report	Yes	Reporting deadline given in 40 CFR 63.1516.
40 CFR 63.10(e)(4)	Continuous Opacity Monitoring System (COMS) Data Produced During a Performance Test	Yes	
40 CFR 63.10(f)	Waiver of Recordkeeping or Reporting Requirements	Yes	
40 CFR 63.11(a)-(e)	Control Device and Work Practice Requirements	No	Flares not applicable.

40 CFR 63.12(a)-(c)	State Authority and Delegations	Yes	EPA retains authority for applicability determinations.
40 CFR 63.13	Addresses	Yes	
40 CFR 63.14	Incorporations by Reference	Yes	ACGIH Guidelines, ASTM D7520-13, and Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and - Dibenzofurans (CDDs and CDFs) and 1989 Update.
40 CFR 63.15	Availability of Information and Confidentiality	Yes	
40 CFR 63.16	Performance Track Provisions	No	

Section 8 - State Only Requirements

1. Permitted Emissions for Fees

The annual emissions from the source for purposes of "Duties to Pay Fees" of Condition 2.3(e), not considering insignificant activities as addressed by Section 6, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. The Permittee shall maintain records with supporting calculations of how the annual emissions for fee purposes were calculated. This Condition is set for the purpose of establishing fees and is not federally enforceable. See Section 39.5(18) of the Act.

Pollutant		*Tons/Year*
Volatile Organic Material	(VOM)	23.76
Sulfur Dioxide	(SO_2)	0.17
Particulate Matter	(PM)	87.64
Nitrogen Oxides	(NO_x)	17.40
HAP, not included in VOM or PM	(HAP)	8.00
	Total	136.97

Attachment 1 - List of Emission Units at This Source

Section	*Emission Units*	*Description*
4.1	Rotary Furnaces (RF1 and RF3) Holding Furnace Deox Shot Casting	Secondary Aluminum Production which produces recycled scrap ingot and deox from melting and recovery of aluminum scrap and dross.

Attachment 2 - Acronyms and Abbreviations

acfm	Actual cubic feet per minute
ACMA	Alternative Compliance Market Account
Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
ATU	Allotment trading unit
BACT	Best Available Control Technology
BAT	Best Available Technology
Btu	British Thermal Units
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAIR	Clean Air Interstate Rule
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CISWI	Commercial Industrial Solid Waste Incinerator
CO	Carbon monoxide
CO_2	Carbon dioxide
COMS	Continuous Opacity Monitoring System
CPMS	Continuous Parameter Monitoring System
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
ERMS	Emissions Reduction Market System
°F	Degrees Fahrenheit
GHG	Greenhouse gas
GACT	Generally Acceptable Control Technology
gr	Grains
HAP	Hazardous air pollutant
Hg	Mercury
HMIWI	Hospital medical infectious waste incinerator
hp	Horsepower
hr	Hour
H_2S	Hydrogen sulfide
I.D. No.	Identification number of source, assigned by IEPA
IAC	Illinois Administrative Code
ILCS	Illinois Compiled Statutes
IEPA	Illinois Environmental Protection Agency
kw	Kilowatts
LAER	Lowest Achievable Emission Rate
lbs	Pound

m	Meter
MACT	Maximum Achievable Control Technology
M	Thousand
MM	Million
mos	Month
MSDS	Material Safety Data Sheet
MSSCAM	Major Stationary Sources Construction and Modification (Non-attainment New Source Review)
MW	Megawatts
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen oxides
NSPS	New Source Performance Standards
NSR	New Source Review
PB	Lead
PEMS	Predictive Emissions Monitoring System
PM	Particulate matter
PM_{10}	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
$PM_{2.5}$	Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 microns as measured by applicable test or monitoring methods
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
PSD	Prevention of Significant Deterioration
PSEU	Pollutant-Specific Emission Unit
psia	Pounds per square inch absolute
PTE	Potential to emit
RACT	Reasonable Available Control Technology
RMP	Risk Management Plan
scf	Standard cubic feet
SCR	Selective catalytic reduction
SIP	State Implementation Plan
SO_2	Sulfur dioxide
T1	Title I - identifies Title I conditions that have been carried over from an existing permit
T1N	Title I New - identifies Title I conditions that are being established in this permit
T1R	Title I Revised - identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
USEPA	United States Environmental Protection Agency
VOM	Volatile organic material

Attachment 3 - Contact and Reporting Addresses

IEPA Compliance Section	Illinois EPA, Bureau of Air Compliance & Enforcement Section (MC 40) 1021 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276 Phone No.: 217/782-2113
IEPA Stack Test Specialist	Illinois EPA, Bureau of Air Compliance Section Source Monitoring - Third Floor 9511 Harrison Street Des Plaines, Illinois 60016 Phone No.: 847/294-4000
IEPA Air Quality Planning Section	Illinois EPA, Bureau of Air Air Quality Planning Section (MC 39) 1021 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276 Phone No.: 217/782-2113
IEPA Air Regional Field Operations Regional Office #1	Illinois EPA, Bureau of Air Regional Office #1 9511 Harrison Street Des Plaines, Illinois 60016 Phone No.: 847/294-4000
IEPA Permit Section	Illinois EPA, Bureau of Air Permit Section (MC 11) 1021 North Grand Avenue East P.O. Box 19506 Springfield, Illinois 62794-9506 Phone No.: 217/785-1705
USEPA Region 5 - Air Branch	USEPA (AR - 17J) Air and Radiation Division 77 West Jackson Boulevard Chicago, Illinois 60604 Phone No.: 312/353-2000

Attachment 4 - Example Certification by a Responsible Official

SIGNATURE BLOCK
NOTE: THIS CERTIFICATION MUST BE SIGNED BY A RESPONSIBLE OFFICIAL. APPLICATIONS WITHOUT A SIGNED CERTIFICATION WILL BE DEEMED AS INCOMPLETE.
I CERTIFY UNDER PENALTY OF LAW THAT, BASED ON INFORMATION AND BELIEF FORMED AFTER REASONABLE INQUIRY, THE STATEMENTS AND INFORMATION CONTAINED IN THIS APPLICATION ARE TRUE, ACCURATE AND COMPLETE. ANY PERSON WHO KNOWINGLY MAKES A FALSE, FICTITIOUS, OR FRAUDULENT MATERIAL STATEMENT, ORALLY OR IN WRITING, TO THE ILLINOIS EPA COMMITS A CLASS 4 FELONY. A SECOND OR SUBSEQUENT OFFENSE AFTER CONVICTION IS A CLASS 3 FELONY. (415 ILCS 5/44(H)) AUTHORIZED SIGNATURE: BY: _____ _____ AUTHORIZED SIGNATURE — TITLE OF SIGNATORY _____ _____/_____/_____ TYPED OR PRINTED NAME OF SIGNATORY — DATE